# DOCUMENT RESUME

ED 226 033 TM 830 061

| | |
|---|---|
| TITLE | Multiple-Choice Cloze Exercises: Textual Domain, Mathematics. SPPED Test Development Notebook, Form 81-M [and] Answer Key for Multiple-Choice Cloze Exercises: Textual Domain, Mathematics. SPPED Test Development Notebook, Form 85-M. Revised. |
| INSTITUTION | New York State Education Dept., Albany. Div. of Research. |
| PUB DATE | 77 |
| NOTE | 219p.; For related documents, see TM 830 056-065. |
| PUB TYPE | Tests/Evaluation Instruments (160) |
| EDRS PRICE | MF01/PC09 Plus Postage. |
| DESCRIPTORS | Algebra; Analytic Geometry; *Answer Keys; *Cloze Procedure; Computation; Difficulty Level; *Elementary School Mathematics; Elementary Secondary Education; Geometry; Graphs; *Item Banks; *Multiple Choice Tests; Number Concepts; Probability; Reading Comprehension; Reading Tests; *Secondary School Mathematics; Set Theory; Trigonometry |

ABSTRACT

The "Test Development Notebook" is a resource designed for the preparation of tests of literal comprehension for students in grades 1 through 12. This volume contains 200 multiple-choice cloze exercises taken from textbooks in mathematics, and the accompanying answer key. Each exercise carries the code letter of the section to which it belongs. The code letter is followed by the difficulty level of the passage as determined by application of a readability formula. Supplemental, small-print codes on the exercises give additional passage information as explained in SPPED Form 86, the "Handbook." The "Handbook" is the guide to the "Test Development Notebook," and users should review it before starting to work with the multiple-choice cloze exercises in this volume. (Author/BW)

***********************************************************************
*    Reproductions supplied by EDRS are the best that can be made     *
*                  from the original document.                        *
***********************************************************************

ED226033

TM 830 061

SPPED

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

FORM
81
M

# TEST DEVELOPMENT NOTEBOOK

# Multiple-Choice
# Cloze Exercises
# TEXTUAL DOMAIN
# Mathematics

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

R. Trombly

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Revised 1977

The University of the State of New York
THE STATE EDUCATION DEPARTMENT
Divisions of Research and Evaluation
Albany, New York 12234
1976

# SPPED: System for Pupil and Program Evaluation and Development

## TEST DEVELOPMENT NOTEBOOK

## Multiple-Choice Cloze Exercises

The University of the State of New York
THE STATE EDUCATION DEPARTMENT
Division of Research
Albany, New York 12234
Revised 1977

Copyright 1976
The University of the State of New York
The State Education Department

Individuals or institutions wishing to use the Test Development Notebook should contact the Bureau of School and Cultural Research, New York State Education Department, Albany, New York 12234, regarding conditions for use.

# ACKNOWLEDGMENTS

The preparation of the Test Development Notebook was initiated in 1974 by Robert P. O'Reilly, then Chief of the Bureau of School and Cultural Research, New York State Education Department. Participants in its development were: Production--Jean Corigliano, Joan Heffler, Shelly Sternbach, and Susan Weiner; Research--Paul D. Hayford, Steven J. Kidder, Ruth Salter, R.T. Schuder, Ronald Streeter, and Gerlach van Gendt.

When first printed in 1976, the Test Development Notebook contained 1,496 Multiple-Choice Cloze Exercises including over 1,000 with passages taken from textbooks for grades 1 through 10. In 1977 a number of the exercises in the Textual Domain were revised, and the domain was expanded with the addition of 229 exercises from texts for grades 11 and 12.

Paul D. Hayford, Assistant in Education Research, and Ruth Salter, Associate in Education Research, in the Bureau of School and Cultural Research, were responsible for the revision of the exercises and, with Linda Rennells, Consultant, for the review and editing of the additions.

The additional exercises were prepared by 15 teachers in the East Syracuse-Minoa, Jamesville-DeWitt, and West Genesee School Districts under a Title IV-C Grant received by East Syracuse-Minoa for a Demonstration Project on Integrating Reading into Content Areas. Starr Canestraro, Instructional Coordinator for the East Syracuse-Minoa Central Schools, arranged the summer workshop where training in the construction of the Multiple-Choice Cloze Exercises was provided by Mr. Hayford. Teacher participants were: Louis DiMento, Peter Fantinato, Gerald Kelly, Irene Marquart, Ida Nesheiwat, Bruno Puetzer, Jr., Patricia Santulli, James Slowik, Lawrence Sollitt--East Syracuse-Minoa; Joseph Culhane, Lloyd Jerauld--Jamesville-DeWitt; Judy Carpenter, David Crawford, Lynn Davis, Patricia Flynn--West Genesee.

Secretarial service for the revision and expansion of the Notebook was provided by Vicki Noble and Nancy Wait.

## USER INFORMATION

This Test Development Notebook is a resource designed for the preparation of tests of literal comprehension for students in grades 1 through 12. It contains 1,725 Multiple-Choice Cloze Exercises with passages taken from four domains or types of material students read--the Textual Domain, the Citizen Domain, the Consumer Domain, and the Reference Domain. The Textual Domain encompasses textbooks in the five major content or subject-matter areas--Reading/Literature, Language Arts, Social Studies, Science, and Mathematics. The Citizen Domain covers Newspapers and News Magazines. The Consumer Domain includes advertisements and packaging, bulletins, consumer magazines, and the like. The Reference Domain takes in test instructions, instructional magazines, encyclopedias, dictionaries, and other reference works.

The Test Development Notebook is divided in nine sections as follows:

| Section | | Code | Exercises |
|---|---|---|---|
| Textual Domain: | Reading/Literature | R | 425 |
| Textual Domain: | Language Arts | LA | 200 |
| Textual Domain: | Social Studies | SS | 260 |
| Textual Domain: | Science | S | 200 |
| Textual Domain: | Mathematics | M | 200 |
| Citizen Domain: | Newspapers | N | 120 |
| Citizen Domain: | News Magazines | NM | 120 |
| Consumer Domain | | C | 100 |
| Reference Domain | | Rf | 100 |

Each section has its own cover page and an index showing the number of exercises by level of difficulty. As the Notebook is unbound, the sections may be readily separated and placed in individual ringbinders or file folders to facilitate test assembly and storage.

6

Each exercise carries the code letter of the section to which it belongs. The code letter is followed by the difficulty level of the passage as determined by application of a readability formula. Exercises at each difficulty level are numbered sequentially. Thus, R 15-6 in large print in the upper right corner of an exercise indicates that the exercise is from the Reading/Literature section (Textual Domain), that it is at difficulty level 15, and that it is the sixth Reading/Literature passage at that difficulty level.

Supplemental, small-print codes on the exercises give additional passage information as explained in SPPED Form 86, Test Development Notebook, Multiple-Choice Cloze Exercises: Handbook. The Handbook also describes the Multiple-Choice Cloze format, explains the difficulty levels, suggests test designs for various evaluation purposes, discusses scoring, and outlines test assembly procedures.

The Handbook is, in short, the guide to the Test Development Notebook, and users should review it thoroughly before starting to work with the Multiple-Choice Cloze Exercises. Users will also need SPPED Form 85, Test Development Notebook, Answer Key for Multiple-Choice Cloze Exercises. The Answer Key has nine sections, corresponding to the nine sections of the TDN, i.e., Reading/Literature, 85R; Language Arts, 85LA; and so forth.

## Number of Exercises by Difficulty Level

TEXTUAL DOMAIN: Mathematics (M)

Total Exercises: 200*

| Level | Exercises | Level | Exercises |
|---|---|---|---|
| 1 | | 15 | 7 |
| 2 | | 16 | 7 |
| 3 | | 17 | 10 |
| 4 | | 18 | 11 |
| 5 | 6 | 19 | 11 |
| 6 | 9 | 20 | 19 |
| 7 | 4 | 21 | 8 |
| 8 | 9 | 22 | 11 |
| 9 | 4 | 23 | 9 |
| 10 | 8 | 24 | 8 |
| 11 | 8 | 25 | 6 |
| 12 | 10 | 26 | 7 |
| 13 | 9 | 27 | 2 |
| 14 | 11 | 28 | 6 |

*Taken from mathematics texts, grades 3-12.

Long ago in the country of India the Hindu __________ invented a plan of __________ numerals. Then an Arabic __________, in the country of Arabia, __________ this way of writing __________ . The Arabic people moved __________ very much and carried the __________ to many other lands. __________ came to our country from __________ . They brought this plan with them. Our __________ is called the *Hindu-Arabic* System.

○
1. people
2. bars
3. soups
4. languages

○
1. lumping
2. wiping
3. driving
4. writing

○
1. people
2. tree
3. dollar
4. cellar

○
1. weighed
2. blew
3. learned
4. kicked

○
1. spheres
2. subsets
3. rectangles
4. numerals

○
1. hungrily
2. around
3. silently
4. loudly

○
1. mule
2. dish
3. hum
4. plan

○
1. Drawers
2. Hatches
3. Bridges
4. People

○
1. overseas
2. goodness
3. corn
4. electricity

○
1. gate
2. plan
3. bridge
4. wife

03-05-01-05-02 **M 5-2**

South American shepherds many years ago tied __________ in strings to keep __________ . The set of strings with __________ was called a *quipu*. As __________ of sheep became larger, the __________ of stones or marks __________ were made larger. Some __________ became so large that __________ ways of keeping records __________ to be found.

Shepherds __________ to use large stones to stand for subsets of sheep in their flocks.

○
1. rewards
2. knots
3. cups
4. bugs

○
1. apartments
2. crowns
3. tigers
4. records

○
1. knots
2. farms
3. locks
4. telephones

○
1. paths
2. colors
3. flocks
4. visits

○
1. factors
2. sets
3. centimeters
4. endpoints

○
1. also
2. crazily
3. gaily
4. sadly

○
1. stamps
2. books
3. circles
4. flocks

○
1. happy
2. new
3. sticky
4. raw

○
1. baked
2. ate
3. had
4. yelled

○
1. tiptoed
2. drove
3. began
4. barked

In the small jar, there were eighty-three __________ beans. In the big __________, there were three loose __________ and eight flat sticks. Each __________ had ten beans __________ on it. Mr. Potter __________ each stick a "10-stick."

Ramón __________ the beans in the __________ jar. Clarissa counted the __________ in the big jar. Who do you __________ could count the beans faster?

○
1. monthly
2. empty
3. hungry
4. loose

○
1. pen
2. hole
3. jar
4. check

○
1. beans
2. heads
3. poles
4. spiders

○
1. stick
2. swan
3. hospital
4. way

○
1. married
2. glued
3. sailed
4. rained

○
1. melted
2. called
3. dipped
4. folded

○
1. counted
2. hatched
3. begged
4. married

○
1. small
2. salty
3. sick
4. yearly

○
1. beans
2. breaths
3. planets
4. quacks

○
1. think
2. sob
3. growl
4. bark

You can cut out many geometric __________ from a folded sheet of __________ . Try to guess what __________ each cutout will be when you __________ it.

When you cut, be __________ to start and end on the __________ . Fold a sheet of __________ . Cut out a *rectangular* __________ . Now unfold. What shape is the __________ ? Cut out a smaller __________ region. Cut out a larger rectangular region. What shape do you always get when you unfold?

○
1. presents
2. shapes
3. gasps
4. mills

○
1. order
2. paper
3. rest
4. courage

○
1. end
2. helicopter
3. shape
4. barn

○
1. lick
2. stop
3. bite
4. unfold

○
1. loud
2. dark
3. proud
4. sure

○
1. owl
2. fold
3. kitchen
4. donkey

○
1. chicken
2. paper
3. winter
4. pipe

○
1. *warrior*
2. *attack*
3. *region*
4. *kiss*

○
1. cutout
2. oven
3. nickel
4. kingdom

○
1. rectangular
2. ordinal
3. maximum
4. fractional

In arithmetic we study *numbers*. In __________ we study *space*. When we __________ space, we think about __________ of points. Sometimes we __________ numbers when thinking about __________ . Arithmetic and geometry are __________ of a bigger study __________ *mathematics*. Why do you __________ the word *mathematics* was __________ in the title of your __________ ? Why do you think we should study space?

○
1. abacus
2. subtraction
3. geometry
4. multiplication

○
1. hum
2. handle
3. study
4. seize

○
1. fractions
2. spheres
3. halves
4. sets

○
1. obey
2. sense
3. wear
4. use

○
1. space
2. pie
3. sense
4. magic

○
1. streets
2. babies
3. gates
4. parts

○
1. barked
2. painted
3. muttered
4. called

○
1. groan
2. roar
3. think
4. taste

○
1. whispered
2. used
3. sawed
4. pumped

○
1. leap
2. book
3. rage
4. gold

Fold a sheet of paper down the _________ . Cut a design from the _________, keeping at least a _________ of the fold. Open the _________ . Are both parts of the _________ just alike? Does the _________ have a line of _________ ? How can you fold a _________ of paper so that a cut-out _________ will have two lines of _________ ?

○
1. middle
2. cellar
3. pack
4. engine

○
1. paper
2. morning
3. test
4. ceiling

○
1. home
2. knock
3. window
4. part

○
1. paper
2. bath
3. princess
4. sugar

○
1. jar
2. contest
3. picture
4. love

○
1. banana
2. grab
3. plan
4. picture

○
1. subtraction
2. symmetry
3. geometry
4. multiplication

○
1. package
2. bump
3. woman
4. sheet

○
1. spring
2. raccoon
3. point
4. design

○
1. symmetry
2. addition
3. radius
4. subtraction

You know what a circle __________ like. Do you know what an __________ looks like? If you __________ a picture of a __________, would it look more like a __________ or more like an __________ ? Do you know how to __________ a circle or an __________ with only a __________, a piece of __________, and some tacks?

○
1. scratches
2. looks
3. bumps
4. stops

○
1. ellipse
2. addend
3. eighth
4. equation

○
1. moved
2. drew
3. drilled
4. planted

○
1. patient
2. wife
3. reward
4. football

○
1. rectangle
2. circle
3. segment
4. digit

○
1. abacus
2. endpoint
3. equivalent
4. ellipse

○
1. batter
2. draw
3. trip
4. chop

○
1. account
2. ellipse
3. amount
4. axis

○
1. shoe
2. pencil
3. turnip
4. knock

○
1. rock
2. track
3. string
4. clock

Units of measure along a __________ are called linear units. Some of these __________ are the inch, foot, __________, and mile. We use __________ units to measure lengths and __________ .

On the other hand, we __________ square units to measure __________ . Some of these units are the __________ inch, square foot, and __________ mile.

Which units of __________ would you use, linear or square?

○
1. digit
2. line
3. factor
4. remainder

○
1. rectangles
2. halves
3. fractions
4. units

○
1. blizzard
2. toot
3. yard
4. danger

○
1. cardinal
2. rectangular
3. linear
4. associative

○
1. tunes
2. distances
3. dinners
4. pairs

○
1. eat
2. shadow
3. use
4. chase

○
1. area
2. laughter
3. silence
4. magic

○
1. difficult
2. neat
3. eager
4. square

○
1. extra
2. square
3. favorite
4. neat

○
1. cost
2. numeration
3. measure
4. addition

Many, many years before your __________ lived, people used different __________ to measure than we __________ today.

How did early __________ measure small things, like __________ ? He used the width of his __________ for very small things. He __________ the width of his __________, or four fingers, for __________ things that were shorter than a __________ .

Measure the length of this page with the palm of your hand.

○
1. grandfather
2. store
3. helicopter
4. picture

○
1. ways
2. toots
3. blizzards
4. batteries

○
1. climb
2. bend
3. use
4. send

○
1. coffee
2. man
3. perch
4. jam

○
1. fish
2. inns
3. sales
4. visits

○
1. trail
2. gate
3. stop
4. finger

○
1. used
2. hurried
3. lost
4. whirled

○
1. palm
2. bath
3. cousin
4. thud

○
1. delicious
2. homely
3. happy
4. other

○
1. cubit
2. dinner
3. grin
4. thud

You know that we use __________ in numerals which name __________ greater than 999. The __________ of digits set off by __________ in a numeral are __________ *periods.*

There are three __________ in each *period* in a __________ . Begin at the right and __________ to the left to __________ off each set of __________ digits. We use a comma to separate periods in a numeral.

○
1. dishes
2. commas
3. pats
4. neighbors

○
1. endpoints
2. segments
3. spheres
4. numbers

○
1. groups
2. tins
3. drivers
4. sounds

○
1. commas
2. laughs
3. hugs
4. telephones

○
1. mixed
2. called
3. stewed
4. wired

○
1. telescopes
2. warriors
3. places
4. coats

○
1. numeral
2. radius
3. multiple
4. centimeter

○
1. go
2. toss
3. row
4. shovel

○
1. count
2. blow
3. chase
4. trade

○
1. three
2. pleasant
3. dusty
4. brown

Shepherds long ago used small __________ to keep records of their __________ . They kept one stone for each __________ in a flock.

To __________ out if any sheep were __________, a shepherd *matched* a __________ to each stone. If he __________ more stones than sheep, he __________ some sheep were missing. Did the __________ need to know how to __________ to do this?

○
1. fountains
2. kittens
3. stones
4. nurses

○
1. geese
2. brooms
3. sheep
4. rivers

○
1. sheep
2. study
3. lord
4. surprise

○
1. find
2. wear
3. break
4. eat

○
1. raining
2. missing
3. roasting
4. honking

○
1. sheep
2. jump
3. kettle
4. pole

○
1. had
2. pushed
3. smelled
4. read

○
1. blew
2. sang
3. hummed
4. knew

○
1. iron
2. shepherd
3. tongue
4. diamond

○
1. clap
2. count
3. spin
4. swing

At blastoff, a rocket ship had 2500 tons of __________ . After the first stage __________ off, the rocket had 275 __________ of fuel left. How many __________ of fuel did the __________ stage burn?

The first __________ drove the ship 51 __________ . The second stage drove the __________ 898 miles. The third __________ drove the ship 699 __________ . How many miles in all did the three stages drive the ship?

○
1. fuel
2. nitrogen
3. pollen
4. algae

○
1. swam
2. paid
3. scampered
4. dropped

○
1. dreams
2. tons
3. hens
4. sails

○
1. arms
2. tons
3. lakes
4. wagons

○
1. perfect
2. homely
3. dusty
4. first

○
1. lamb
2. boat
3. stage
4. jacket

○
1. walks
2. miles
3. customers
4. moments

○
1. farm
2. corner
3. brook
4. ship

○
1. block
2. box
3. lot
4. stage

○
1. pairs
2. books
3. winds
4. miles

Some children from the third ________ of Hilldale School visited the ________ museum. The museum was ________ miles from the school. In ________ and coming from the ________, how many miles did the ________ travel in all?

The ________ were separated into two ________ with a guide for each ________ . Eight boys and seven ________ were in the first group. How many children were in this group?

○
1. laughter
2. grade
3. potato
4. camera

○
1. golden
2. ripe
3. stiff
4. state

○
1. tender
2. watery
3. angry
4. nine

○
1. going
2. inventing
3. listening
4. stating

○
1. pole
2. museum
3. scare
4. burn

○
1. children
2. islands
3. gazes
4. sidewalks

○
1. children
2. letters
3. stops
4. troubles

○
1. stoves
2. markets
3. manners
4. groups

○
1. beach
2. group
3. granny
4. plan

○
1. girls
2. windows
3. spies
4. stands

One weekend, four third graders went on a __________ . One of the third __________ carried a quart jug of __________ . What numeral could you __________ to show what part of the __________ of third graders carried __________ ?

Twelve fourth graders also __________ hiking. Three of them __________ one quart jug of __________ each. What numeral could you __________ to show what part of the group of fourth graders carried water?

○
1. barnyard
2. chair
3. hike
4. monkey

○
1. cupcakes
2. graders
3. seas
4. adventures

○
1. water
2. glass
3. hair
4. skin

○
1. live
2. love
3. write
4. start

○
1. group
2. mama
3. insect
4. cup

○
1. excitement
2. water
3. respect
4. joy

○
1. drifted
2. went
3. served
4. slept

○
1. grew
2. roasted
3. smoked
4. carried

○
1. water
2. salt
3. work
4. silk

○
1. plant
2. growl
3. write
4. return

Ron's class took an imaginary __________ trip to visit the __________—the asteroids. The __________ are thousands of tiny __________ between Mars and Jupiter. Mars is 142 __________ miles from the __________ . Jupiter is 341 million __________ farther. How far is Jupiter from the __________ ? The largest known asteroid, Ceres, is 480 __________ wide. Earth is 8000 __________ wide. How much wider is it than Ceres?

○
1. stupid
2. purple
3. space
4. lordly

○
1. miniplanets
2. babies
3. stamps
4. automobiles

○
1. tadpoles
2. asteroids
3. eardrums
4. cocoons

○
1. spores
2. planets
3. gills
4. nymphs

○
1. yellow
2. thankful
3. middle
4. million

○
1. knife
2. hip
3. sun
4. salt

○
1. divides
2. candles
3. miles
4. checks

○
1. jam
2. lad
3. doorway
4. sun

○
1. years
2. miles
3. shoes
4. dolls

○
1. miles
2. languages
3. signals
4. tags

You can describe many things by __________ how long they are. But __________ times, length isn't an __________ measure. A family might __________ a 13-pound turkey for __________. It probably wouldn't matter how __________ the turkey was.

There are __________ of ways to measure __________. You might find how __________ a thing weighs, or how much __________ it takes, or how much surface it covers.

○
1. snarling
2. catching
3. shoving
4. telling
5. linking

○
1. many
2. expert
3. sly
4. striped
5. desert

○
1. unhappy
2. impossible
3. important
4. alert
5. elegant

○
1. want
2. court
3. ring
4. sweep
5. slap

○
1. waste
2. style
3. dinner
4. cause
5. dough

○
1. deep
2. green
3. long
4. sticky
5. anxious

○
1. hopes
2. trades
3. things
4. lots
5. waxes

○
1. scars
2. things
3. peddlers
4. causes
5. quacks

○
1. much
2. homely
3. grown
4. faint
5. lively

○
1. jelly
2. room
3. pink
4. horn
5. reward

Cut a strip of paper about 12 __________ long and 2 inches __________ . How many sides does the __________ of paper have? Can you __________ a path from one __________ to the other side without __________ an edge? Label the __________ . Now tape the ends __________ to make a __________ . Does the strip still __________ two sides? How can you check?

○

1. floods
2. dreams
3. spots
4. clouds
5. inches

○

1. fair
2. wide
3. new
4. soft
5. cold

○

1. village
2. wheel
3. bunk
4. wagon
5. strip

○

1. clutch
2. spear
3. draw
4. fan
5. learn

○

1. fisherman
2. ocean
3. side
4. scare
5. bean

○

1. aiding
2. bouncing
3. crossing
4. dropping
5. banding

○

1. shares
2. corners
3. rides
4. men
5. commands

○

1. loudly
2. gaily
3. together
4. sadly
5. faintly

○

1. ring
2. pump
3. nail
4. jump
5. husband

○

1. study
2. admire
3. write
4. have
5. lead

Patty is making a sewing __________ . She wants enough ribbon to __________ around the lid. She __________ a string around the __________ . She measured the string to __________ how much ribbon to __________ . David said she could __________ the sides of the __________ and then add. Miss Burns __________ them they were finding the __________ of the top of the box.

○
1. jab
2. hug
3. box
4. ant
5. tug

○
1. know
2. roll
3. tip
4. buy
5. pat

○
1. tack
2. honk
3. hiss
4. toe
5. kneel

○
1. contain
2. carry
3. equal
4. earn
5. measure

○
1. put
2. dressed
3. scrubbed
4. dug
5. banned

○
1. jaw
2. wax
3. key
4. hen
5. lid

○
1. art
2. lid
3. ash
4. set
5. dad

○
1. hid
2. left
3. told
4. wound
5. filled

○
1. pilot
2. date
3. find
4. astonish
5. spear

○
1. inequality
2. ruler
3. nickel
4. perimeter
5. axis

Here are two ways to __________ circles. Use a strip of __________ . Punch two holes 2 __________ apart. Stick a pin through one __________ . Put your pencil in the __________ hole and draw a __________ .

Use a compass. Put __________ under your paper. Stick the __________ into the paper. Let the __________ point touch the paper __________ . Hold the compass between your thumb and finger and twirl it. Draw a circle.

○
1. pretend
2. shoot
3. draw
4. lose
5. sing

○
1. beehive
2. cardboard
3. imagination
4. astonishment
5. meadow

○
1. perimeters
2. yardsticks
3. heights
4. inches
5. nickels

○
1. plain
2. desert
3. hole
4. baker
5. cross

○
1. tame
2. alert
3. juicy
4. arched
5. other

○
1. vertical
2. circle
3. height
4. side
5. diagonal

○
1. medicine
2. sausage
3. downstairs
4. goldfish
5. cardboard

○
1. salute
2. point
3. shade
4. parrot
5. tailor

○
1. helpful
2. curious
3. squirmy
4. pencil
5. fancy

○
1. eagerly
2. newly
3. palely
4. lightly
5. thirstily

If a man wished to _________ the floor of his _________ with skins, how could he _________ how many skins to _________ ? How could he measure the _________ from one side of the _________ to the other? If he could _________ across a skin in one _________ and he could step across the _________ in five steps, could he _________ how many skins long the hut was?

○
1. chew
2. mail
3. burn
4. cover

○
1. chair
2. swim
3. vegetable
4. hut

○
1. sound
2. bang
3. know
4. become

○
1. get
2. surprise
3. buzz
4. chase

○
1. driver
2. farmer
3. distance
4. model

○
1. hospital
2. bud
3. office
4. hut

○
1. fight
2. die
3. till
4. step

○
1. step
2. cone
3. sheet
4. touch

○
1. flutter
2. hut
3. country
4. frog

○
1. tell
2. bark
3. dream
4. change

03-08-01-05-03 M 8-2

Jay's class decided to give __________ weather reports. Each morning and __________ they checked the __________ and how the sky looked. With __________ weather reports a day and __________ days in each school __________, how many reports did Jay's __________ make in two weeks?

The __________ wanted to buy a __________ vane. They had one __________, twelve dimes, and seven nickels. How much would they have left if the wind vane cost $1.63?

○
1. greedy
2. daily
3. half
4. impatient

○
1. neighborhood
2. afternoon
3. tale
4. hose

○
1. earthworm
2. temperature
3. microscope
4. tadpole

○
1. plain
2. two
3. white
4. mad

○
1. quick
2. final
3. five
4. blue

○
1. week
2. wave
3. laugh
4. bean

○
1. fur
2. wife
3. class
4. soup

○
1. class
2. guard
3. nibble
4. spy

○
1. stately
2. willing
3. homely
4. wind

○
1. chimney
2. brick
3. quarter
4. kitten

There are 24 hours in a _________ . When the sun is _________, it is 12:00 *noon*. The _________ 12 hours after _________ is 12:00 *midnight*. The _________ from midnight to noon are _________ *am*. The hours from _________ to midnight are _________ *pm*.

Would you eat _________ at 6 am or 6 pm? Are _________ usually open at 10 am or 10 pm?

○
1. spy
2. fox
3. law
4. jet
5. day

○
1. rapid
2. hoarse
3. overhead
4. remarkable
5. green

○
1. prick
2. plane
3. snake
4. stamp
5. time

○
1. gym
2. hay
3. cocoa
4. noon
5. spite

○
1. heels
2. colts
3. hooks
4. hours
5. corals

○
1. knotted
2. polished
3. mended
4. labeled
5. freed

○
1. noon
2. kiss
3. poet
4. path
5. fuss

○
1. heaved
2. awakened
3. aided
4. traded
5. labeled

○
1. heat
2. action
3. color
4. dinner
5. glass

○
1. coasts
2. monkeys
3. banks
4. chants
5. fields

04-08-01-05-03 M 8-4

Sometimes you are asked to give an __________ in more than one __________ . Then, *always* go back to the __________ you started with. The __________ for 2748 to the __________ ten is *2750*; to the __________ hundred is *2700*; to the __________ thousand is *3000*. Tell how each __________ was made. How many __________ must you have for an __________ to the nearest ten? to the nearest hundred? thousand?

○
1. evening
2. area
3. owl
4. engineer
5. approximation

○
1. family
2. pass
3. jelly
4. dart
5. way

○
1. cone
2. number
3. compass
4. cube
5. radius

○
1. experiment
2. baseball
3. blanket
4. framework
5. approximation

○
1. fussiest
2. nearest
3. greenest
4. fairest
5. bravest

○
1. nearest
2. rudest
3. hottest
4. dizziest
5. brownest

○
1. freest
2. jolliest
3. newest
4. nearest
5. sandiest

○
1. stew
2. relation
3. magazine
4. approximation
5. gardenia

○
1. curves
2. dimes
3. edges
4. zeros
5. taxes

○
1. approximation
2. offer
3. oil
4. age
5. astronaut

Ann has 25¢ and Jane __________ 18¢. Which girl __________ more money? Ann thinks of the __________ she has in terms of __________ and uses a decimal to __________ how much money she __________ . She says she has $.25. __________: twenty-five hundredths of a __________ . Is Ann right?

Give Jane's __________ in terms of a __________, using a decimal.

○
1. aids
2. has
3. lopes
4. springs
5. nudges

○
1. admires
2. thinks
3. has
4. hides
5. hits

○
1. money
2. attention
3. light
4. echo
5. article

○
1. jays
2. scars
3. blasts
4. dollars
5. dogs

○
1. trap
2. tell
3. knife
4. shed
5. win

○
1. has
2. says
3. meets
4. begs
5. breaks

○
1. Fry
2. Ride
3. Strut
4. Duck
5. Read

○
1. plain
2. kangaroo
3. dash
4. coach
5. dollar

○
1. grandfather
2. money
3. feed
4. dish
5. summer

○
1. cycle
2. platter
3. dollar
4. patch
5. ticket

The set with no members is called the empty __________ . Which of the following are __________ of the empty set? The __________ of pages in this __________ . The set of countries that are __________ of the United Nations. The __________ of boys in your __________ over eight feet tall. The __________ of horses that speak English. The __________ of insects that make __________ .

○

1. decimal
2. seller
3. square
4. money
5. set

○

1. bedrooms
2. tomorrows
3. descriptions
4. struggles
5. reins

○

1. solution
2. check
3. set
4. radius
5. equal

○

1. lamp
2. fact
3. fog
4. loss
5. book

○

1. profits
2. shapes
3. ratios
4. integers
5. members

○

1. graph
2. tally
3. set
4. kilogram
5. solution

○

1. stump
2. booth
3. beauty
4. garden
5. class

○

1. square
2. gallon
3. money
4. set
5. product

○

1. yard
2. ruler
3. contribution
4. perimeter
5. set

○

1. honey
2. bravery
3. envy
4. string
5. smoke

Use a ruler to draw a __________ of two lines. Hold the __________ firmly against your paper. With your __________, draw a mark along the __________ edge of the ruler, then along the __________ edge.

Do you think the __________ lines you have shown are __________ ? You know that the __________ go on without end in __________ directions. Do you think that the __________ you have pictured would ever have a common point?

○
1. crystal
2. picture
3. football
4. medicine
5. command

○
1. ruler
2. divisor
3. width
4. coin
5. ratio

○
1. turnip
2. weight
3. pencil
4. chance
5. banana

○
1. outdoor
2. top
3. quick
4. middle
5. united

○
1. pacific
2. cool
3. bottom
4. veiled
5. sunny

○
1. velvety
2. two
3. extra
4. yellow
5. convenient

○
1. false
2. parallel
3. equivalent
4. rectangular
5. equal

○
1. lines
2. zeros
3. yards
4. sums
5. numbers

○
1. both
2. lucky
3. shallow
4. rich
5. mistaken

○
1. sets
2. totals
3. closures
4. lines
5. decimals

Fold a piece of paper. Open it, then ________ another way. Is there a ________ that is on both ________ ? If so, make a ________ there and label it *A*. ________ fold the paper other ________ . At each crossing, make a ________ . Name these *B*, *C*, *D*, and so on.

You can ________ of the locations of ________ as *points*. A point is one ________ location. It has no size at all.

○
1. bleat
2. splash
3. fold
4. mail
5. pull

○
1. place
2. poppy
3. whale
4. gate
5. crowd

○
1. stages
2. laughs
3. pearls
4. queens
5. creases

○
1. dot
2. mutt
3. tag
4. dish
5. swan

○
1. Handsomely
2. Often
3. Politely
4. Now
5. Faintly

○
1. pecks
2. arts
3. hams
4. forks
5. ways

○
1. sale
2. town
3. tug
4. dot
5. tea

○
1. count
2. think
3. fall
4. howl
5. glow

○
1. oils
2. jaws
3. ashes
4. zoos
5. dots

○
1. awake
2. exact
3. low
4. sleepy
5. underwater

The boys at Lincoln School are __________ basketball. Each team __________ 5 players. There are 45 __________ in Mr. Allen's gym __________ . How many teams will he __________ ? There are 35 boys in Mr. Lee's __________ gym class. How many __________ can he form? There are 40 __________ in Mr. Lee's second __________ . How many teams can he __________ ?

○
1. riding
2. playing
3. paying
4. mumbling
5. bottling

○
1. wins
2. has
3. sews
4. breaks
5. twirls

○
1. ropes
2. bells
3. pictures
4. benches
5. boys

○
1. pal
2. rooster
3. brain
4. class
5. drip

○
1. have
2. breathe
3. flush
4. kiss
5. comb

○
1. first
2. foreign
3. dusty
4. hollow
5. concrete

○
1. belts
2. gardens
3. frogs
4. pedals
5. teams

○
1. watches
2. baths
3. closets
4. quarts
5. boys

○
1. piano
2. bead
3. truck
4. diamond
5. class

○
1. obey
2. shine
3. cook
4. form
5. float

For a birthday gift, Karen __________ a watch that had three __________ : an hour hand, a __________ hand, and a red __________ hand. She was told that it __________ 5 seconds for the __________ hand to move from one __________ to the next. The __________ hand travels all the __________ round the clockface in one __________ . How many seconds are in one minute?

○
1. received
2. interested
3. spelled
4. printed
5. pictured

○
1. hands
2. flares
3. blooms
4. sacks
5. poles

○
1. minute
2. thick
3. velvet
4. tame
5. sticky

○
1. gay
2. free
3. shifty
4. second
5. pretty

○
1. wanders
2. burns
3. feels
4. takes
5. ships

○
1. merry
2. sunny
3. curious
4. second
5. simple

○
1. yard
2. numeral
3. endpoint
4. diagram
5. collection

○
1. fruity
2. waxed
3. second
4. fair
5. coiled

○
1. wag
2. ma
3. hen
4. oar
5. way

○
1. minute
2. clump
3. pup
4. movie
5. desk

The Winchester Mystery House in San Jose, California was __________ by Mrs. Sarah Winchester. She __________ that she would not __________ as long as she __________ builders working on her __________ . The 160-room house __________ covers 6 acres of __________ .

A football field is __________ an acre of land. __________ how many football fields could be __________ on the land covered by the Mystery House?

○
1. built
2. flown
3. squeezed
4. changed
5. grown

○
1. believed
2. flagged
3. shivered
4. starved
5. sprang

○
1. whinny
2. know
3. suspect
4. train
5. die

○
1. burned
2. frightened
3. drew
4. kept
5. shoved

○
1. parade
2. bonnet
3. house
4. violin
5. drill

○
1. now
2. palely
3. often
4. rapidly
5. kindly

○
1. nickel
2. action
3. land
4. desk
5. hay

○
1. proudly
2. prettily
3. gently
4. about
5. meekly

○
1. Perhaps
2. About
3. Richly
4. Beyond
5. Hourly

○
1. stamped
2. put
3. failed
4. tricked
5. shut

The prize committee for a ________ party is using felt-tip ________ as prizes. Two pens ________ together with a piece of ________ make a prize. How many ________ does the committee need to ________ 0 prizes? To make 1 ________ ? 2 prizes? Each product that you ________ is a *multiple* of 2. ________ that each prize was to ________ 3 pens. How many pens would be needed for 2 prizes?

○
1. faint
2. stiff
3. gloomy
4. class
5. wide

○
1. pens
2. squints
3. heroes
4. carpenters
5. cots

○
1. tied
2. loaded
3. cracked
4. bruised
5. hoed

○
1. clatter
2. laughter
3. rabbit
4. yarn
5. tea

○
1. summers
2. huddles
3. pedals
4. tins
5. pens

○
1. sway
2. make
3. nibble
4. suffer
5. bathe

○
1. concert
2. jacket
3. prize
4. speck
5. sprinkle

○
1. pitched
2. rhymed
3. hurt
4. viewed
5. named

○
1. Mumble
2. Blink
3. Groan
4. Suppose
5. Spray

○
1. tease
2. ride
3. have
4. plant
5. chase

We can compare the number of __________ with the number of __________ by saying, "There are 3 __________ as many girls as __________ ." There are 1/3 as many __________ as girls.

When we __________ by division, we often __________ the word *ratio*. We __________ the ratio of the __________ of girls to the __________ of boys is 9 to 3, or 9/3.

○
1. storekeepers
2. clovers
3. girls
4. cradles
5. pipes

○
1. gardens
2. boys
3. closets
4. ears
5. ropes

○
1. addresses
2. crests
3. times
4. subjects
5. pads

○
1. drawers
2. facts
3. threats
4. boys
5. series

○
1. balconies
2. grapevines
3. clovers
4. boys
5. rods

○
1. collect
2. borrow
3. replace
4. compare
5. kneel

○
1. pack
2. ring
3. use
4. blurt
5. ride

○
1. rest
2. say
3. baby
4. cry
5. row

○
1. ruler
2. cost
3. inequality
4. graph
5. number

○
1. number
2. polygon
3. cylinder
4. relationship
5. chord

Before people had yardsticks and __________, they used parts of their __________ to measure other things. __________ a boy had a __________ he liked very much, but __________ it. If the back of the __________ was an arm's length and the __________ was a hand's width __________, could he measure the __________ and cord for a __________ bow?

○
1. halves
2. subsets
3. rulers
4. centimeters

○
1. cuts
2. bodies
3. ages
4. cakes

○
1. Perhaps
2. Sleepily
3. Directly
4. Presently

○
1. peep
2. bow
3. dare
4. roar

○
1. teased
2. drew
3. ran
4. lost

○
1. slap
2. lake
3. bow
4. brick

○
1. barn
2. bowstring
3. owl
4. baseball

○
1. neater
2. prettier
3. shorter
4. busier

○
1. whisper
2. wood
3. feed
4. plain

○
1. plain
2. shy
3. new
4. gay

Suppose you cut a pound of butter into __________ equal pieces. Will the __________ still weigh a __________ if none of the __________ are taken away? If you __________ the butter into sixteen __________ pieces, each piece would __________ an *ounce*. *Sixteen* __________ and *one pound* are __________ ways of describing the __________ weight.

The short way of writing *ounce* is *oz*.

○
1. black
2. snowy
3. several
4. jerky

○
1. tongue
2. block
3. weather
4. butter

○
1. segment
2. multiple
3. sphere
4. pound

○
1. whirls
2. daughters
3. pieces
4. stems

○
1. blow
2. wire
3. sail
4. cut

○
1. swift
2. ripe
3. wrong
4. equal

○
1. join
2. guard
3. dine
4. weigh

○
1. *ounces*
2. *crows*
3. *hunts*
4. *strips*

○
1. delicious
2. hot
3. two
4. sharp

○
1. same
2. loud
3. clear
4. fishy

Andy's class planned a picnic for the 296 __________ in first, second, and third __________ . Neighborhood storekeepers gave the __________ special prices on hot __________, buns, milk, popsicles, and __________ .

Maria's job was to __________ eight napkins on each __________ . If 296 places were __________ for picnickers, how many __________ did Maria need to __________ napkins on? When Maria had finished with 20 tables, she had put out how many napkins?

○
1. pupils
2. hoses
3. keepers
4. fixes

○
1. candy
2. grade
3. cream
4. copper

○
1. overhead
2. moment
3. school
4. practice

○
1. dogs
2. sleds
3. sailors
4. medicines

○
1. jobs
2. rages
3. marches
4. napkins

○
1. farm
2. stall
3. place
4. spoil

○
1. table
2. puppy
3. trick
4. chimney

○
1. repaired
2. needed
3. puffed
4. practiced

○
1. directions
2. sighs
3. kings
4. tables

○
1. burn
2. put
3. star
4. hammer

Henry helped his father build __________ shelves. Henry wondered whether a __________ 5 inches wide and 20 __________ long would have as __________ space to hold things as a __________ 15 inches long and 10 __________ wide.

Henry could not __________ one shelf and lay it over the other to __________ areas as Sandra did. He __________ some library file cards that were 5 __________ by 3 inches and used them to compare the areas.

○
1. sore
2. pure
3. official
4. some
5. fair

○
1. ridge
2. motor
3. shelf
4. skate
5. glance

○
1. inches
2. endpoints
3. collections
4. solutions
5. profits

○
1. homely
2. much
3. thick
4. warm
5. lucky

○
1. mamma
2. flame
3. creek
4. shelf
5. train

○
1. meters
2. parts
3. nickels
4. rulers
5. inches

○
1. flame
2. paddle
3. stripe
4. disappoint
5. cut

○
1. intersect
2. correct
3. borrow
4. complete
5. compare

○
1. gobbled
2. invented
3. described
4. started
5. found

○
1. inches
2. amounts
3. examples
4. octagons
5. halves

We can think of rays which do not __________ angles. Suppose an astronomer is __________ at the moon. The __________ in which his telescope __________ suggests a ray. Now, __________ an astronaut is standing on the __________ . He looks back at __________ A on the earth. The __________ in which he looks __________ another ray. What is the __________ of this ray? Name the ray suggested by the astronaut looking at the earth.

○
1. fly
2. form
3. twinkle
4. weave
5. date

○
1. solving
2. figuring
3. looking
4. sensing
5. silencing

○
1. direction
2. astonishment
3. situation
4. pronunciation
5. championship

○
1. points
2. catches
3. leaks
4. marches
5. voices

○
1. quack
2. howl
3. suppose
4. promise
5. sigh

○
1. flag
2. hunt
3. cork
4. pump
5. moon

○
1. point
2. digit
3. cost
4. cube
5. parallelogram

○
1. direction
2. happiness
3. tortilla
4. handkerchief
5. umbrella

○
1. flags
2. suggests
3. jails
4. drives
5. herds

○
1. interest
2. hundredth
3. abacus
4. numeration
5. endpoint

A boat is anchored in a __________ . A rope ladder hangs over the __________ so that 10 rungs of the __________ are showing and the __________ rung is just above the __________ . The distance between rungs is 4 __________ and each rung is 1 __________ thick. If the tide __________ 2 inches each __________, how many rungs of the __________ will be showing after 5 hours?

○

1. salmon
2. violin
3. lettuce
4. princess
5. river

○

1. vertices
2. ratios
3. inches
4. subsets
5. inequalities

○

1. apprentice
2. activity
3. olive
4. scale
5. side

○

1. value
2. operation
3. inch
4. dollar
5. total

○

1. ladder
2. activity
3. increase
4. cupboard
5. lily

○

1. cooks
2. discusses
3. rises
4. labels
5. visits

○

1. smoothest
2. ripest
3. richest
4. lowest
5. poorest

○

1. braid
2. hour
3. loaf
4. prince
5. slap

○

1. relay
2. water
3. soap
4. stove
5. capital

○

1. ton
2. ladder
3. cone
4. beast
5. discovery

George's mother noticed on page 13 of __________ paper that boys' __________ had been reduced from $6.99 to $5.49. __________ 5-10 were on sale. George __________ size 6. His mother __________ him $6.00. George __________ to the store on Fourth Street and __________ the sneakers. He returned __________ at 5:30 p.m. How much __________ should he give his __________ ?

○

1. crust's
2. cable's
3. rhythm's
4. yesterday's
5. comfort's

○

1. drinks
2. pupils
3. tracks
4. examples
5. sneakers

○

1. Sizes
2. Touches
3. Acorns
4. Markets
5. Charts

○

1. wears
2. slashes
3. halts
4. hurries
5. swings

○

1. gave
2. chipped
3. smashed
4. wrote
5. purchased

○

1. said
2. walked
3. centered
4. chanted
5. howled

○

1. bought
2. whittled
3. blocked
4. tasted
5. thrashed

○

1. loosely
2. intently
3. mildly
4. home
5. radiantly

○

1. sight
2. grass
3. baseball
4. change
5. health

○

1. article
2. weather
3. lock
4. wheat
5. mother

Fold a sheet of notebook __________ in half. Using a __________ pencil poke three holes, __________ all in a __________, through the folded paper. __________ the paper. Using the __________ as vertices, draw a __________ on each half of the __________ . Are the triangles the __________ size and shape? Fold the __________ again to check it. Make other matching polygons in this way.

○
1. skill
2. pride
3. rubber
4. paper
5. laughter

○
1. sharp
2. sticky
3. cool
4. crisp
5. sole

○
1. gently
2. someday
3. overtly
4. not
5. hourly

○
1. conclusion
2. dime
3. distance
4. lattice
5. line

○
1. Open
2. Feel
3. Forge
4. Address
5. Wind

○
1. hitches
2. interviews
3. holes
4. toots
5. vacuums

○
1. value
2. subset
3. difference
4. triangle
5. protractor

○
1. tie
2. entry
3. flake
4. distress
5. paper

○
1. crisp
2. last
3. new
4. same
5. thin

○
1. fable
2. paper
3. morning
4. robin
5. carpenter

Nathan and Cindy spent 6 hours one Saturday __________ their Uncle Sherman in his __________ store. Nathan spent 2 __________ unpacking cartons in the __________ . What fractional part of his __________ did he spend on __________ duties?

Uncle Sherman __________ 4 1/2 hours waiting on __________, 1 1/4 hours making a __________ display, and 2 3/4 hours __________ new stock. How many hours was this in all?

○

1. skipping
2. helping
3. stalking
4. harming
5. cutting

○

1. frisky
2. scratchy
3. solemn
4. hardware
5. wicked

○

1. patches
2. hours
3. tickets
4. pipes
5. slants

○

1. stockroom
2. tickle
3. sausage
4. height
5. patch

○

1. mamma
2. gate
3. time
4. yard
5. claim

○

1. snowy
2. sad
3. other
4. late
5. rusty

○

1. gazed
2. squeezed
3. scared
4. spent
5. roamed

○

1. feelings
2. customers
3. conversations
4. contents
5. trunks

○

1. squirmy
2. window
3. poor
4. present
5. common

○

1. ordering
2. tricking
3. threatening
4. bucking
5. shadowing

We use different words to describe groupings. A __________ is a group of __________ . A *score* is a __________ of twenty. A *century* is a __________ of one hundred. In the __________ Roman army a group of 100 __________ was called a century. How many __________ were in 3 __________ ?

When Abraham Lincoln spoke at Gettysburg, he __________ "4 score and 7 __________ ago." How many years was this?

○
1. *path*
2. *youth*
3. *message*
4. *decade*
5. *clock*

○
1. fog
2. tea
3. ice
4. action
5. ten

○
1. pride
2. stake
3. chief
4. city
5. group

○
1. stall
2. twist
3. label
4. polish
5. group

○
1. thirsty
2. stupid
3. lean
4. immediate
5. ancient

○
1. palaces
2. blossoms
3. buses
4. soldiers
5. doorways

○
1. huts
2. vans
3. grapes
4. pecks
5. men

○
1. turnips
2. adventures
3. discoveries
4. hillsides
5. centuries

○
1. explored
2. invited
3. billowed
4. said
5. hatched

○
1. colts
2. dusks
3. faces
4. years
5. mice

A circle is a closed curve on a __________ surface which has the __________ that each point of the __________ curve is at the __________ distance from a given __________ . The given point is __________ the center point.

A __________ of a circle is a __________ line segment one of whose __________ points is the center of the __________ and the other end point is a point of the closed curve forming the circle.

○
1. false
2. cardinal
3. divisible
4. plane
5. mixed

○
1. building
2. border
3. contest
4. property
5. question

○
1. closed
2. steamed
3. groped
4. returned
5. thumbed

○
1. former
2. narrow
3. shiny
4. same
5. easy

○
1. point
2. interest
3. dime
4. tally
5. operation

○
1. called
2. folded
3. proposed
4. hired
5. issued

○
1. square
2. yardstick
3. net
4. quart
5. radius

○
1. hollow
2. stormy
3. dead
4. straight
5. native

○
1. even
2. soft
3. end
4. fussy
5. ideal

○
1. money
2. profit
3. product
4. combination
5. circle

Imagine a place where a base-five __________ system is used and the __________ coins are pennies, nickels, and __________ . In the land of __________ five, if a boy __________ 3 pennies and earned 1 __________ penny, he would have 4 __________ altogether. If he had 3 __________ and earned 2 more, he would __________ his answer this way: 3 + 2 = 10 because __________ pennies have the same value as 1 nickel.

○
1. concurrent
2. isosceles
3. inverse
4. numeration
5. diagonal

○
1. only
2. poison
3. gleeful
4. ripe
5. jolly

○
1. hexagons
2. exponents
3. quarters
4. medians
5. squares

○
1. base
2. high
3. moldy
4. noisy
5. sweet

○
1. cracked
2. fed
3. defended
4. became
5. had

○
1. milder
2. safer
3. sicker
4. coarser
5. more

○
1. radii
2. quotients
3. pennies
4. degrees
5. shapes

○
1. graphs
2. pennies
3. pyramids
4. rulers
5. chords

○
1. write
2. sock
3. steal
4. grasp
5. fan

○
1. arched
2. royal
3. five
4. inky
5. famed

Lorna did the week's shopping for her __________ one Saturday morning. She __________ a 7-pound pot __________ for $5.53. How much did it __________ per pound?

In the __________ department, she chose 2 __________ of carrots at 19¢ each, 3 __________ of tomatoes at 39¢ a __________, 2 cucumbers for 35¢, and 1 __________ of mushrooms for 98¢. How much did she __________ for produce?

○
1. faucet
2. family
3. brain
4. paint
5. carpet

○
1. drove
2. wrecked
3. accomplished
4. bought
5. netted

○
1. memory
2. guest
3. roast
4. cargo
5. pilot

○
1. rank
2. reduce
3. cost
4. construct
5. intersect

○
1. juicy
2. produce
3. cloudy
4. moldy
5. violent

○
1. constitutions
2. pools
3. bunches
4. reflections
5. sweets

○
1. combinations
2. pounds
3. numerators
4. circles
5. diagonals

○
1. line
2. gain
3. curve
4. dime
5. pound

○
1. circumference
2. difference
3. decimal
4. rectangle
5. pound

○
1. burn
2. confess
3. cage
4. spend
5. repair

Each year in June and December, Mr. Jensen ________ an inventory of his ________ to see what he ________ in stock and what he ________ for the coming 6-month ________ .

During the latest inventory, Mr. Jensen ________ that he had 18 ________ of 100 aspirin each on his ________ . His books showed that he ________ about 200 such bottles a ________ . How many bottles will he need to order for the next 6 months?

○
1. greets
2. murmurs
3. takes
4. mystifies
5. shrieks

○
1. snowflake
2. advice
3. tail
4. wood
5. drugstore

○
1. kindles
2. pets
3. orbits
4. has
5. contacts

○
1. erects
2. harms
3. sobs
4. needs
5. piles

○
1. sandal
2. glen
3. soup
4. apricot
5. period

○
1. dreaded
2. whinnied
3. smelled
4. winked
5. discovered

○
1. bottles
2. chases
3. references
4. geniuses
5. passageways

○
1. ham
2. cork
3. shawl
4. shelf
5. door

○
1. repeated
2. gobbled
3. walloped
4. sold
5. cabled

○
1. month
2. soul
3. zigzag
4. bugle
5. dame

There were two lily pads in Morgan __________ . The distance across the __________ was 15 ft. The __________ from the shore to the __________ lily pad was 5 1/2 ft., and from the __________ pad to the second was 4 1/3 ft. If a __________ jumped from one __________ to the second lily __________, how far does he __________ to jump to reach the __________ shore?

○
1. arena
2. cover
3. reverse
4. pond
5. specimen

○
1. pond
2. case
3. institution
4. dime
5. wrist

○
1. approval
2. woodchuck
3. majesty
4. distance
5. apron

○
1. stubborn
2. active
3. first
4. holy
5. dear

○
1. first
2. present
3. sleek
4. hot
5. gorgeous

○
1. nail
2. weed
3. stress
4. trick
5. frog

○
1. culture
2. skill
3. shore
4. spider
5. porpoise

○
1. badge
2. pad
3. favor
4. kid
5. clasp

○
1. hoot
2. spray
3. slump
4. have
5. ski

○
1. noble
2. other
3. pretty
4. clumsy
5. famous

06-11-01-05-03 **M 11-8**

Mark, Phil, and Bonnie deliver __________ . On the morning route, Mark __________ 57 papers, Phil 76 __________, and Bonnie 76 __________ . In the afternoon, Mark __________ 64 papers, Phil 26 __________, and Bonnie 38 papers.

How many __________ do the three of them __________ in the morning? in the __________ ?

How many papers does Mark __________ each day?

○
1. papers
2. plates
3. astronauts
4. raspberries
5. walls

○
1. wounds
2. applies
3. delivers
4. contacts
5. smears

○
1. papers
2. thieves
3. announcements
4. passes
5. retorts

○
1. gravels
2. papers
3. wrecks
4. hums
5. bridges

○
1. cramps
2. parades
3. delivers
4. screws
5. dismays

○
1. larders
2. lifeguards
3. models
4. papers
5. archaeologists

○
1. papers
2. equals
3. juices
4. noises
5. nuts

○
1. fix
2. silence
3. ford
4. deliver
5. abandon

○
1. machinery
2. fairy
3. surf
4. afternoon
5. television

○
1. expect
2. commit
3. rate
4. deliver
5. pivot

Steve Bolger was happy in his __________ home in Foxboro. He __________ his friends in Willow Grove to __________ how close his new __________ was to all the __________ places in town. Steve __________ a drawing that was an __________ representation of his town. A __________ such as this is __________ a scale drawing. Whenever we __________ a reduced drawing of an object according to a definite plan, we have a scale drawing.

○

1. new
2. furry
3. ill
4. nervous
5. crispy

○

1. chewed
2. cleaned
3. wanted
4. shoved
5. admired

○

1. prevent
2. chant
3. taste
4. know
5. smell

○

1. lid
2. home
3. soil
4. puppy
5. frown

○

1. important
2. occasional
3. jerky
4. desperate
5. chilly

○

1. made
2. wore
3. fiddled
4. pinched
5. lit

○

1. athletic
2. icy
3. exact
4. electric
5. arch

○

1. listing
2. reading
3. ruling
4. drawing
5. meeting

○

1. called
2. wired
3. smashed
4. blown
5. flagged

○

1. toast
2. shop
3. make
4. bathe
5. open

Jack and Ann spent their __________ traveling through the West with their __________ . While they were in Salt Lake City the __________ took a boat ride. It __________ $1.50 for adults and $.75 for __________ . How much did it __________ two adults and two __________ ?

When they were in California they were __________ that the population was about 21,535,000. __________ years ago, the __________ was 15,717,000. How much had the population increased?

○
1. machine
2. vacation
3. saw
4. player
5. championship

○
1. parents
2. spaces
3. nudges
4. prints
5. wounds

○
1. batter
2. process
3. deck
4. speck
5. family

○
1. agreed
2. tallied
3. divided
4. added
5. cost

○
1. children
2. designs
3. warriors
4. museums
5. cattle

○
1. cost
2. find
3. curve
4. check
5. equal

○
1. sheep
2. foremen
3. fleas
4. children
5. skyscrapers

○
1. mounted
2. told
3. melted
4. bought
5. fed

○
1. Necessary
2. Stupid
3. Ten
4. Spare
5. Proper

○
1. population
2. stagecoach
3. disease
4. underground
5. olive

This year we will explore __________ ideas of mathematics. Let's __________ some imagination and "I __________ what would happen if . . ."

__________ a set of points __________ to each natural or __________ number, 1, 2, 3, and so on. What would __________ if we add the first __________ natural numbers? What is the __________ of the first three? the __________ four?

○
1. slender
2. hungry
3. homely
4. some
5. sunny

○
1. spill
2. use
3. dart
4. track
5. sink

○
1. wonder
2. sputter
3. startle
4. skim
5. cease

○
1. Frighten
2. Purchase
3. Imagine
4. Smoke
5. Crown

○
1. rented
2. turned
3. matched
4. blurred
5. sold

○
1. comparing
2. agreeing
3. measuring
4. borrowing
5. counting

○
1. happen
2. weave
3. pardon
4. shrink
5. march

○
1. lost
2. terrible
3. two
4. swift
5. prompt

○
1. sum
2. tax
3. variable
4. net
5. circle

○
1. first
2. iciest
3. widest
4. rudest
5. slyest

Imagine the surface of the desk __________ without bound in all __________ . You are thinking of a __________ . A plane has no __________ . It has no edges __________ . Cut two pieces of __________ half way across. Slide the __________ together at the __________ . Your model shows two __________ planes. What is the __________ of these two planes?

○

1. researching
2. expanding
3. pollinating
4. inhaling
5. telegraphing

○

1. directions
2. dinosaurs
3. jaws
4. charcoals
5. pumps

○

1. *plane*
2. *center*
3. *hexagon*
4. *nickel*
5. *digit*

○

1. thickness
2. adventure
3. goodness
4. mistress
5. darkness

○

1. undersea
2. aboard
3. upstairs
4. anywhere
5. underground

○

1. foam
2. mush
3. paper
4. sunlight
5. bravery

○

1. glares
2. cliffs
3. sinks
4. papers
5. gains

○

1. stories
2. tomatoes
3. cuts
4. tucks
5. hands

○

1. earning
2. correcting
3. estimating
4. intersecting
5. budgeting

○

1. collection
2. intersection
3. divisor
4. yard
5. discount

Mark a point on your paper. __________ it *0*. Place the __________ point of the compass on the __________ *0* and the pencil __________ on the paper. Keep the __________ upright and take the __________ of the compass between your __________ and the finger next to the __________ . Keep the steel point on the __________ and rotate the compass through one __________ turn. The pencil point will trace a picture of a circle.

○

1. Dial
2. Frisk
3. Skim
4. Appeal
5. Label

○

1. thankful
2. desert
3. flashy
4. radiant
5. steel

○

1. point
2. contribution
3. coin
4. decimal
5. number

○

1. point
2. quadilateral
3. tally
4. operation
5. degree

○

1. closure
2. product
3. degree
4. compass
5. formula

○

1. bucket
2. top
3. flush
4. lasso
5. hall

○

1. conclusion
2. being
3. treat
4. thumb
5. sputter

○

1. track
2. thumb
3. clipper
4. lemonade
5. toy

○

1. paper
2. snowman
3. cockroach
4. toss
5. cake

○

1. scornful
2. terrific
3. naughty
4. complete
5. doubtful

**During art class, the children __________ a new way to __________ designs. Each one dipped a __________ of string in tempera __________ and laid the string on one __________ of a sheet of __________ paper. The paper was __________ over the string and was __________ together. The paper was __________ and the string was __________ .**

○

1. **wrung**
2. **slit**
3. **dumped**
4. **learned**
5. **haunted**

○

1. **milk**
2. **make**
3. **smother**
4. **hear**
5. **wrinkle**

○

1. **lamb**
2. **vote**
3. **piece**
4. **robin**
5. **fig**

○

1. **fire**
2. **dough**
3. **paint**
4. **faith**
5. **country**

○

1. **tractor**
2. **tramp**
3. **side**
4. **bird**
5. **cone**

○

1. **weird**
2. **nervous**
3. **manila**
4. **doubtful**
5. **loyal**

○

1. **elected**
2. **folded**
3. **graduated**
4. **loaned**
5. **welcomed**

○

1. **bellowed**
2. **disappointed**
3. **pressed**
4. **camped**
5. **switched**

○

1. **granted**
2. **phoned**
3. **stomached**
4. **bothered**
5. **unfolded**

○

1. **removed**
2. **gurgled**
3. **shouted**
4. **pursued**
5. **bought**

A scientist was experimenting with __________ . He took a bag that __________ 2 ounces, and into the __________ he put a pound of __________ and a pound of __________ . He took the same __________ of bag, and into this __________ he put a pound of __________ and a pound of __________ . Then he weighed the __________ bags together. What did the scale read?

○
1. joy
2. weight
3. nature
4. jail
5. neglect

○
1. knifed
2. barred
3. dismissed
4. weighed
5. stalked

○
1. fix
2. scalp
3. echo
4. pair
5. bag

○
1. mares
2. feathers
3. faces
4. fishermen
5. satisfactions

○
1. power
2. comfort
3. lead
4. amazement
5. disgust

○
1. kind
2. rim
3. route
4. wall
5. root

○
1. bag
2. bell
3. moon
4. navy
5. supper

○
1. ghosts
2. marshmallows
3. triangles
4. enemies
5. telegraphs

○
1. clues
2. firemen
3. honors
4. teachers
5. apples

○
1. sticky
2. juicy
3. two
4. coiled
5. dusty

**A scientific reference book states that the ________ of the earth's diameter is 7926 ________ . Why do you think 8000 ________ is often used for this ________ ? The number 8000 is an ________ for 7926. You ________ 7926 ≈ 8000. The ________ ≈ means** *is approximately* **________** *to.* **Find the approximation to the ________ thousand for 7926. 7926 is between 7000 and 8000. Is 7926 ________ than or less than 7500?**

○
1. **castle**
2. **mouth**
3. **delay**
4. **length**
5. **stamp**

○
1. **mathematics**
2. **helms**
3. **routines**
4. **miles**
5. **offenses**

○
1. **miles**
2. **transfusions**
3. **carcasses**
4. **sprouts**
5. **starches**

○
1. **compound**
2. **supply**
3. **desert**
4. **distance**
5. **quarry**

○
1. *endpoint*
2. *edge*
3. *approximation*
4. *amount*
5. *addend*

○
1. **emerge**
2. **plow**
3. **handle**
4. **write**
5. **sneeze**

○
1. **beach**
2. **examination**
3. **symbol**
4. **chick**
5. **degree**

○
1. *equal*
2. *curved*
3. *mixed*
4. *exponential*
5. *assigned*

○
1. **sweetest**
2. **squarest**
3. **saddest**
4. **happiest**
5. **nearest**

○
1. **dumber**
2. **shorter**
3. **further**
4. **greater**
5. **flashier**

A pair of numbers is __________ an *ordered pair* of __________ when the order in which the __________ are considered is important. We __________ an ordered pair of __________ by enclosing them in __________ and separating the numbers by a __________ . (3,5) represents the __________ pair "three, five." The __________ pair (3,5) is __________ the same as the ordered pair (5,3).

○
1. threaded
2. called
3. stripped
4. patched
5. rented

○
1. triangles
2. spheres
3. modes
4. fractions
5. numbers

○
1. gains
2. formulas
3. octagons
4. spheres
5. numbers

○
1. bellow
2. group
3. caw
4. whistle
5. represent

○
1. numbers
2. hexagons
3. perimeters
4. sections
5. vertices

○
1. committees
2. parentheses
3. conferences
4. barbershops
5. spectacles

○
1. comma
2. crib
3. hat
4. soil
5. diary

○
1. written
2. bought
3. fumbled
4. ordered
5. flashed

○
1. hardened
2. dazzled
3. bolted
4. peeled
5. ordered

○
1. faithfully
2. not
3. orally
4. craftily
5. mentally

06-12-01-05-04 M 12-10

We have associated numbers and sets of __________ with points on a __________ line. Now we are __________ to associate ordered pairs of __________ with points in a __________ .

We begin with a __________ number line like the ones __________ . Then a second number __________ is drawn perpendicular to the __________ and intersecting the first at __________ 0.

○
1. equations
2. halves
3. rectangles
4. numbers
5. segments

○
1. round
2. negative
3. commercial
4. correct
5. number

○
1. knitting
2. leaping
3. going
4. bursting
5. shimmering

○
1. numbers
2. endpoints
3. rulers
4. dollars
5. centimeters

○
1. dividend
2. divisor
3. plane
4. profit
5. coin

○
1. commercial
2. round
3. cubed
4. distributive
5. horizontal

○
1. pioneered
2. chewed
3. discussed
4. dedicated
5. clamped

○
1. line
2. coin
3. check
4. cone
5. compass

○
1. yarn
2. noise
3. first
4. wife
5. bakery

○
1. church
2. torpedo
3. pot
4. point
5. kit

On October 9th Charles read in the __________ that the annual rodeo would be __________ October 25th. How many __________ days would it be until the __________ ? The price of children's __________ was listed at 65¢. Charles __________ 40¢. How much __________ money did he need?

Charles __________ his friend Doug to __________ with him. Charles traveled 7 __________ to the rodeo. Doug traveled 21 miles. How many more miles did Doug travel?

○
1. scratch
2. material
3. structure
4. newspaper
5. lemonade

○
1. exclaimed
2. held
3. gulped
4. herded
5. sung

○
1. fluffy
2. folk
3. modern
4. more
5. cute

○
1. alert
2. guard
3. south
4. number
5. rodeo

○
1. ice
2. admission
3. lumber
4. oxygen
5. exchange

○
1. stared
2. knew
3. fell
4. dug
5. had

○
1. handsome
2. strange
3. lucky
4. secret
5. more

○
1. asked
2. framed
3. nailed
4. rattled
5. shook

○
1. close
2. whistle
3. go
4. cry
5. sew

○
1. lakes
2. turns
3. twigs
4. miles
5. grins

Suppose we put 12 cubes in a __________ and pick one out without __________ . What are the chances that the one we __________ will be a blue __________ ?

The problem above is about __________ that might happen. There is a __________ part of mathematics that __________ with the chances that a __________ will or will not __________ . That part of mathematics is __________ *probability*.

○
1. sausage
2. sack
3. hug
4. spy
5. law

○
1. gardening
2. sailing
3. straying
4. kindling
5. looking

○
1. battle
2. pick
3. soak
4. warn
5. raise

○
1. cube
2. baby
3. vein
4. loan
5. chore

○
1. scarecrows
2. tires
3. emotions
4. hollows
5. things

○
1. fertile
2. scarlet
3. happy
4. special
5. cocky

○
1. sings
2. deals
3. flutters
4. beaches
5. pardons

○
1. fountain
2. wait
3. tickle
4. suit
5. thing

○
1. insult
2. perch
3. accuse
4. happen
5. print

○
1. prepared
2. called
3. boomed
4. elected
5. honked

There is no physical object that is a __________ . Even a piece of __________ has some thickness. Surface is a __________ concept. A surface can be __________ to extend as far as we __________ . Some surfaces are curved while __________ surfaces are flat. Flat __________ are called plane surfaces or __________ . Plane surface is a __________ whose points lie evenly with any __________ line placed on it.

○
1. check
2. surface
3. dollar
4. penny
5. nickel

○
1. notepaper
2. pronunciation
3. protection
4. charm
5. independence

○
1. geometric
2. commutative
3. divisible
4. cardinal
5. cubed

○
1. interested
2. barbecued
3. threatened
4. thanked
5. considered

○
1. cry
2. lose
3. strike
4. wish
5. flood

○
1. salty
2. wistful
3. stable
4. touchy
5. other

○
1. remainders
2. surfaces
3. dividends
4. digits
5. multiples

○
1. radii
2. spheres
3. planes
4. yardsticks
5. multiples

○
1. decimal
2. sum
3. quart
4. surface
5. number

○
1. weekly
2. homeward
3. honorable
4. ridiculous
5. straight

06-13-01-05-02 **M 13–4**

Arthur saw a bank advertisement. It __________ that the bank pays an __________ rate of 4 %. Arthur __________ what 4 % meant. Arthur's __________ said that 4 % is __________ *four per cent*. Per cent is a __________ name for ratios that __________ how many out of 100. The __________ meant $4 interest is __________ for each $100 on __________ .

○
1. mistook
2. encircled
3. said
4. blessed
5. grew

○
1. opposite
2. infinite
3. ordinal
4. interest
5. absent

○
1. experienced
2. wondered
3. produced
4. consumed
5. enclosed

○
1. teacher
2. inventor
3. newcomer
4. whisper
5. ladder

○
1. meddled
2. sampled
3. paid
4. read
5. stifled

○
1. round
2. careless
3. special
4. missing
5. glorious

○
1. camp
2. herd
3. tell
4. goad
5. convince

○
1. advertisement
2. responsibility
3. civilization
4. prevention
5. warehouse

○
1. served
2. embraced
3. paid
4. circled
5. reinforced

○
1. shelter
2. vacation
3. lather
4. deposit
5. mischief

Mr. Jones spends about 5 __________ for gasoline, maintenance, and __________ each mile he drives. If he has __________ 14,354 miles since he __________ the car, about how much has he __________ on maintenance, gasoline, and __________ ?

Mr. Jones's car __________ him $2952, including interest and __________ . He must make 36 __________ monthly payments. What are his __________ payments?

○
1. inches
2. profits
3. tallies
4. sections
5. cents

○
1. oil
2. truth
3. tint
4. molasses
5. crimson

○
1. clawed
2. driven
3. announced
4. clapped
5. stowed

○
1. untied
2. bought
3. pursued
4. tempted
5. roasted

○
1. splashed
2. spent
3. buried
4. brushed
5. dialed

○
1. lead
2. food
3. oil
4. trouble
5. art

○
1. cemented
2. picked
3. threw
4. cost
5. choked

○
1. poetry
2. insurance
3. terror
4. stillness
5. string

○
1. natural
2. cold
3. equal
4. chewy
5. squeaky

○
1. monthly
2. puny
3. northern
4. noisy
5. religious

John has 8 model cars. Harold __________ 4. How many model __________ do they have __________ ?

One could count to __________ the question "How many?" However, __________ invented a way of __________ the two numbers, 8 and 4, to __________ a third number, 12, to __________ the question. A rule for __________ two numbers to obtain a __________ number is called an *operation*.

○
1. rivets
2. has
3. dazzles
4. bursts
5. drafts

○
1. cars
2. signs
3. forecasts
4. zoos
5. hats

○
1. ideally
2. undersea
3. altogether
4. underneath
5. horizontally

○
1. bump
2. crinkle
3. blubber
4. answer
5. terrify

○
1. soil
2. rhythm
3. faith
4. ivory
5. man

○
1. combining
2. outfitting
3. mocking
4. rehearsing
5. streaking

○
1. lock
2. get
3. bury
4. spatter
5. betray

○
1. climb
2. chafe
3. leap
4. brace
5. answer

○
1. propping
2. clanging
3. combining
4. littering
5. earning

○
1. clean
2. plaid
3. noble
4. third
5. dusty

When you think of a line, you can __________ of a set of __________ extending without limit in __________ directions. Have you ever __________ of a number __________ in this way? In this __________ you will study numbers that are __________ with some of the __________ at the left of __________ on a number line. You will __________ situations where such numbers are useful and discover ways to add and to subtract these numbers.

○

1. eat
2. cheer
3. think
4. drown
5. yelp

○

1. fractions
2. nickels
3. squares
4. points
5. axes

○

1. humane
2. two
3. patient
4. rude
5. costly

○

1. thought
2. died
3. chanted
4. lacked
5. moaned

○

1. cart
2. line
3. price
4. terrier
5. broom

○

1. climb
2. monopoly
3. circus
4. chapter
5. yard

○

1. fondled
2. rewarded
3. tucked
4. squeezed
5. matched

○

1. points
2. budgets
3. means
4. costs
5. profits

○

1. data
2. debt
3. zero
4. power
5. accuracy

○

1. leave
2. consider
3. chase
4. renounce
5. hurdle

Four disks are stacked on a __________, so that each disk is __________ than the one below it. There are two __________ posts available. Without __________ any disk over a __________ disk, can you move the __________, one disk at a __________, to one of the __________ posts? (*Hint*: First try to __________ a tower of 3 __________ .) Can you calculate how many moves you need?

○
1. league
2. set
3. monogram
4. post
5. grin

○
1. fainter
2. smaller
3. worse
4. creakier
5. stupider

○
1. wretched
2. foul
3. grim
4. other
5. fleet

○
1. offering
2. circulating
3. placing
4. enrolling
5. gulping

○
1. smaller
2. hairier
3. cuter
4. yellower
5. squarer

○
1. comic
2. tower
3. visitor
4. terrier
5. aisle

○
1. prey
2. move
3. time
4. ram
5. thigh

○
1. aware
2. other
3. normal
4. wrong
5. future

○
1. endow
2. shape
3. deck
4. move
5. wake

○
1. disks
2. wires
3. bandages
4. angles
5. porters

Forty-one members of a scout __________ went on an outing. They __________ to form teams for a __________ event. Suppose they chose to __________ softball. With ten members __________ up a team, what is the __________ number of teams that could be __________? How many boys would be __________ over? What decimal numeral __________ the number of scouts on the __________?

○
1. troop
2. stamp
3. thrill
4. toot
5. spirit

○
1. stacked
2. wished
3. gossiped
4. attacked
5. giggled

○
1. sports
2. sleek
3. frantic
4. pure
5. sinister

○
1. hoard
2. bake
3. earn
4. snarl
5. play

○
1. using
2. chewing
3. blowing
4. coughing
5. making

○
1. promptest
2. bloodiest
3. sheerest
4. greatest
5. haughtiest

○
1. rescued
2. doubted
3. coasted
4. formed
5. arrayed

○
1. left
2. dug
3. hailed
4. gurgled
5. rejoiced

○
1. visits
2. awakens
3. rides
4. tempts
5. names

○
1. house
2. barn
3. outing
4. propeller
5. igloo

Sam's father keeps a record of how much __________ he buys. For 12 5/10 __________ he wrote 12.5 in his __________ book. How did he __________ 5 tenths? The __________ 12.5 is a *decimal* __________, or simply a __________ . The point between the __________ 2 and 5 is a __________ *point*. It shows where the __________ place is.

○
1. science
2. gasoline
3. government
4. force
5. tin

○
1. gallons
2. segments
3. checks
4. centers
5. accounts

○
1. record
2. heavenly
3. stormy
4. fierce
5. rusty

○
1. tune
2. bellow
3. dart
4. show
5. beam

○
1. numeral
2. circle
3. column
4. axis
5. compass

○
1. *cube*
2. *numeral*
3. *gain*
4. *graph*
5. *length*

○
1. *quart*
2. *decimal*
3. *ruler*
4. *set*
5. *side*

○
1. taxes
2. trapezoids
3. triangles
4. digits
5. yards

○
1. *round*
2. *decimal*
3. *false*
4. *cubed*
5. *correct*

○
1. slopes
2. cures
3. ones
4. claws
5. kites

There are two sizes of type for __________ . One size —pica—types 10 __________ in one inch. The __________ size—elite—types 12 __________ in one inch. Common __________ paper is 8 1/2 inches __________ and 11 inches long.

If the __________ length of a word in English is about 6 __________ long, about how many __________ can be put on one __________ ?

○
1. plantations
2. typewriters
3. kitchens
4. medicines
5. atmospheres

○
1. grunts
2. yelps
3. letters
4. tops
5. unions

○
1. other
2. velvety
3. joyous
4. gruff
5. relative

○
1. clocks
2. uses
3. letters
4. bends
5. errands

○
1. winning
2. gliding
3. typing
4. squatting
5. cheering

○
1. wide
2. dirty
3. sticky
4. scratchy
5. awake

○
1. eastern
2. far
3. average
4. bloody
5. noble

○
1. thrills
2. letters
3. tops
4. cockpits
5. mushrooms

○
1. words
2. barriers
3. chases
4. raids
5. camels

○
1. page
2. child
3. dingo
4. instant
5. vessel

05-14-01-05-01 **M 14–3**

Mrs. Dever is explaining to her __________ the quantities of fruit and __________ she bought. She had a __________ of green apples, a __________ of berries, and a __________ of peppers. Peck, quart, __________— these are units of __________ measure.

Although the units of __________ measure are not used as __________ now as they were in the __________, it is well to learn the table of dry measure so that we will recognize the units.

○
1. barn
2. raffle
3. table
4. daughter
5. minnow

○
1. guests
2. leopards
3. vegetables
4. highways
5. sidewalks

○
1. compass
2. polygon
3. bushel
4. ruler
5. triangle

○
1. centimeter
2. quart
3. shape
4. perimeter
5. coin

○
1. peddler
2. blink
3. honk
4. drone
5. peck

○
1. bushel
2. center
3. diagram
4. graph
5. circle

○
1. bald
2. pale
3. dry
4. slow
5. sad

○
1. parallel
2. dry
3. poor
4. happy
5. mild

○
1. viciously
2. pleasantly
3. frequently
4. harshly
5. bravely

○
1. gong
2. engineer
3. goat
4. past
5. member

**Tom was driving to Baltimore with his __________ . He noticed that they had __________ 135 miles in 3 __________ . He said, "We have been __________ at an average rate of 45 mph." Do you __________ the speedometer showed 45 mph at each __________ during the 3 __________ ?**

**On the return trip, Tom and his __________ drove 184 miles in 4 __________ . The average rate of __________ was 46 mph.**

○
1. ledge
2. father
3. umpire
4. astronomer
5. anchor

○
1. awakened
2. painted
3. shocked
4. traveled
5. counted

○
1. hours
2. symbols
3. tempers
4. times
5. nibbles

○
1. stealing
2. ringing
3. gulping
4. traveling
5. frowning

○
1. think
2. hum
3. sigh
4. grunt
5. sing

○
1. moment
2. hoist
3. crest
4. servant
5. slide

○
1. hours
2. rockets
3. strokes
4. rods
5. swims

○
1. foreman
2. father
3. range
4. produce
5. moral

○
1. taps
2. scoops
3. crowds
4. hours
5. mixtures

○
1. speed
2. law
3. sugar
4. trash
5. reference

A group of Girl Scouts __________ 50 cookies. They decided to __________ 5 cookies in each __________ . From the set of 50 __________, *subsets*, each with 5 __________, are put into separate __________ . The subsets are disjoint and __________ .

In this way the __________ of 50 cookies may be __________ into equivalent disjoint subsets of 5 __________ each. How many such subsets are formed from the set of 50 cookies?

○
1. made
2. sank
3. bet
4. hung
5. stuck

○
1. mow
2. insult
3. dust
4. put
5. bully

○
1. limp
2. bag
3. toy
4. streak
5. riddle

○
1. companions
2. cookies
3. pushes
4. rattles
5. scientists

○
1. cookies
2. rides
3. doors
4. undergrounds
5. sandwiches

○
1. vines
2. figs
3. bags
4. spans
5. flops

○
1. improper
2. equivalent
3. absent
4. negative
5. binary

○
1. seller
2. quotient
3. set
4. variable
5. depth

○
1. borrowed
2. partitioned
3. checked
4. curved
5. continued

○
1. stumps
2. cents
3. locks
4. cookies
5. hurrahs

Until recently, there were no __________ used standards of measure. __________ used parts of his __________ as units of length. For __________, a yard was originally __________ as the length of a __________ arm from the tip of his __________ to the end of his __________ . The inch was defined in 1324 as the __________ of three grains of __________ .

○
1. widely
2. sullenly
3. joyously
4. briefly
5. separately

○
1. Pull
2. Heat
3. Buffalo
4. Man
5. Ginger

○
1. quarry
2. eyelid
3. tomato
4. body
5. canyon

○
1. atmosphere
2. example
3. lettuce
4. poverty
5. poetry

○
1. slumped
2. dug
3. defined
4. investigated
5. destroyed

○
1. cargo's
2. jumble's
3. raid's
4. man's
5. snowflake's

○
1. union
2. nose
3. term
4. petal
5. bishop

○
1. hunt
2. bushel
3. drawer
4. hand
5. program

○
1. equation
2. divisor
3. pound
4. yardstick
5. length

○
1. cottonwood
2. knowledge
3. dignity
4. regard
5. barley

06-14-01-05-03 **M 14–7**

Numbers like 1/2, 1/3, 2/3, and 3/4 are __________ *fractions*. They are not __________ numbers. When we use a __________ to describe a __________ of a single object, __________ parts must be the __________ size.

3 → Number of __________ we are thinking about.
8 → __________ number of parts.

We __________ the symbol, 3/8 a __________ numeral.

3 → numerator
8 → denominator

○
1. forecasted
2. challenged
3. barged
4. robbed
5. called

○
1. whole
2. diagonal
3. round
4. cubed
5. maximum

○
1. parallelogram
2. dollar
3. fraction
4. pint
5. zero

○
1. part
2. battle
3. promise
4. beat
5. flow

○
1. misty
2. all
3. shallow
4. maroon
5. raw

○
1. swampy
2. shrewd
3. delicate
4. fuzzy
5. same

○
1. parts
2. massacres
3. flecks
4. purrs
5. carriages

○
1. Total
2. Linear
3. Positive
4. Binary
5. Congruent

○
1. miss
2. stand
3. become
4. run
5. call

○
1. diagonal
2. fractional
3. reciprocal
4. quadrilateral
5. round

**Set the compass at 3 inches and ________ a circle. Cut it ________ . Fold the circle in ________ twice to make four ________ angles. Since the vertices of the ________ meet at the center of the ________, each angle is a ________ *angle* of the circle. How many 90° ________ fit around the center of the ________ ? How many 1° angles ________ around the center of the circle?**

○
1. draw
2. state
3. help
4. attach
5. aid

○
1. okay
2. officially
3. out
4. roughly
5. east

○
1. grass
2. hay
3. yarn
4. freight
5. half

○
1. casual
2. right
3. prime
4. frequent
5. ill

○
1. degrees
2. pennies
3. hexagons
4. angles
5. profits

○
1. coin
2. mean
3. circle
4. total
5. check

○
1. *humble*
2. *jolly*
3. *central*
4. *remote*
5. *rapid*

○
1. accounts
2. angles
3. wholes
4. parts
5. diameters

○
1. vertex
2. circle
3. power
4. variable
5. pentagon

○
1. wait
2. walk
3. fill
4. fit
5. fall

Nobody knows when mathematics first was __________ or who was the __________ to use it. The __________ peoples, like the most __________ people on earth today, __________ some idea of number, although that __________ may only have been __________ for numbers from one to __________ . In the early stages of __________ systems, any large numbers were __________ expressed by the word for *many*.

○
1. dreamed
2. used
3. paid
4. obstructed
5. abhorred

○
1. first
2. eagle
3. sweater
4. oriole
5. phantom

○
1. saltiest
2. earliest
3. jolliest
4. leafiest
5. busiest

○
1. random
2. primitive
3. electric
4. feathery
5. ruddy

○
1. lifted
2. had
3. cracked
4. raked
5. prowled

○
1. lapse
2. laxative
3. idea
4. guidance
5. toss

○
1. names
2. errands
3. hearts
4. traces
5. kettles

○
1. five
2. croquet
3. iron
4. lead
5. paste

○
1. acute
2. numeration
3. inverse
4. rectangular
5. vertical

○
1. wearily
2. sweetly
3. swiftly
4. frantically
5. usually

You will recall from your __________ study that a *set* is a __________ or bunch of things. __________ which belong to a __________ are said to be __________ or *elements* of the __________ . We can choose any __________ whatsoever and decide that they will __________ up a set. In our __________ we most frequently deal with __________ whose members are numbers.

○

1. previous
2. pacific
3. brilliant
4. vacant
5. vocal

○

1. collection
2. parabola
3. midpoint
4. coordinate
5. bisector

○

1. Objects
2. Groans
3. Moons
4. Puddles
5. Hiccups

○

1. set
2. net
3. profit
4. check
5. median

○

1. *vertices*
2. *differences*
3. *members*
4. *perimeters*
5. *logarithms*

○

1. input
2. cone
3. set
4. ruler
5. addend

○

1. tracks
2. objects
3. nerves
4. sneers
5. novels

○

1. paint
2. smear
3. pass
4. cut
5. make

○

1. study
2. stage
3. valley
4. greyhound
5. branch

○

1. dividends
2. diameters
3. sets
4. cubes
5. parallels

Recall that an isosceles triangle has two __________ of the same length. These are __________ *legs*. The third side is __________ the *base*. Also recall that the __________ of a triangle is the __________ of the lengths of the __________ sides. What is the __________ of each leg in an __________ triangle in which the __________ is 12 inches long and the __________ is 49 inches?

○
1. sets
2. equals
3. modes
4. sellers
5. sides

○
1. weaned
2. mowed
3. tuned
4. thrown
5. called

○
1. starched
2. tossed
3. peeled
4. called
5. chirped

○
1. *probability*
2. *composite*
3. *perimeter*
4. *computer*
5. *kilogram*

○
1. quart
2. rate
3. power
4. sum
5. tax

○
1. trusty
2. marine
3. three
4. rickety
5. foul

○
1. graph
2. debt
3. compass
4. length
5. budget

○
1. irrational
2. improper
3. ordinal
4. adjacent
5. isosceles

○
1. base
2. power
3. dime
4. cost
5. account

○
1. reciprocal
2. cylinder
3. trapezoid
4. relationship
5. perimeter

**A number which has exactly ________ different factors is called a ________ *number*. These two different ________ are 1 and the ________ itself. A number which ________ more than two different ________ is called a *composite* ________ .**

**Over 2,000 years ago a Greek ________ Eratosthenes made up a ________ for finding prime numbers. It is ________ the Sieve of Eratosthenes.**

○
1. sleepy
2. quick
3. foul
4. wide
5. two

○
1. *prime*
2. *curved*
3. *vertical*
4. *diagonal*
5. *linear*

○
1. problems
2. operations
3. factors
4. kilograms
5. gallons

○
1. number
2. diagram
3. mode
4. money
5. pyramid

○
1. shines
2. has
3. blames
4. buys
5. whips

○
1. protractors
2. halves
3. factors
4. products
5. meters

○
1. *hexagon*
2. *subset*
3. *lattice*
4. *net*
5. *number*

○
1. tasted
2. smelled
3. named
4. braced
5. formed

○
1. chord
2. quart
3. circle
4. method
5. diameter

○
1. stained
2. called
3. cooled
4. shipped
5. jetted

Two lines in the same __________ either intersect or they do __________ intersect. If the two __________ intersect, how many points of __________ do they have? How many __________ are formed at the __________ ?

Measure the angles formed by __________ intersecting lines. What is the __________ of the measures? If __________ or more lines in the __________ plane do not intersect, the lines are said to be parallel.

○

1. addend
2. centimeter
3. money
4. plane
5. dollar

○

1. wildly
2. cheaply
3. not
4. sadly
5. stiffly

○

1. ornaments
2. lines
3. studios
4. birds
5. dolls

○

1. intersection
2. addition
3. operation
4. solution
5. multiplication

○

1. angles
2. modes
3. kilometers
4. discounts
5. exponents

○

1. negative
2. notation
3. denominator
4. intersection
5. variable

○

1. numb
2. alert
3. busy
4. lean
5. two

○

1. reciprocal
2. segment
3. tax
4. sum
5. pint

○

1. two
2. gay
3. obvious
4. sullen
5. low

○

1. soft
2. rich
3. same
4. calico
5. prompt

**The Pentagon Building is a model of a ________ pentagon, that is, all of the ________ of the building are the ________ length and the angles ________ by the sides are the ________ measure.**

**The perimeter of the Pentagon Building is ________ 1 mile or 5280 ________ . What is the length of each ________ ? What is the sum of the ________ of the angles formed by the ________ of the building?**

○
1. scrawny
2. regular
3. contented
4. bold
5. current

○
1. pints
2. commissions
3. cubes
4. sides
5. values

○
1. hoofed
2. original
3. doubtful
4. same
5. legal

○
1. increased
2. formed
3. padded
4. complained
5. outfitted

○
1. same
2. rusty
3. lame
4. coarse
5. abrupt

○
1. thankfully
2. unexpectedly
3. approximately
4. securely
5. nervously

○
1. feet
2. geese
3. beech
4. firemen
5. women

○
1. trapezoid
2. side
3. protractor
4. triangle
5. pi

○
1. factors
2. endpoints
3. measures
4. valves
5. volumes

○
1. sides
2. equals
3. vertices
4. triangles
5. integers

Many protractors have two scales instead of one. One __________ begins with '0' on the __________ and runs to '180' on the __________ . The second scale begins with '0' on the __________ and runs to '180' on the __________ . Use whichever scale is __________ convenient for you, but __________ that in reading the __________ of an angle you *must* __________ the scale whose zero __________ lies on one side of the angle.

○

1. handicap
2. guppy
3. buggy
4. scale
5. hiccup

○

1. rate
2. brink
3. badge
4. right
5. refund

○

1. feud
2. left
3. turtle
4. field
5. member

○

1. wasp
2. city
3. pistol
4. left
5. church

○

1. right
2. atlas
3. omen
4. widow
5. moth

○

1. more
2. thickly
3. cruelly
4. hourly
5. coldly

○

1. sizzle
2. bawl
3. ring
4. whimper
5. remember

○

1. check
2. probability
3. measure
4. debt
5. budget

○

1. slam
2. singe
3. stack
4. elude
5. read

○

1. profit
2. rate
3. counter
4. point
5. dime

When you perform an experiment of __________ one card from six __________ labeled 1, 2, 3, 4, 5, and 6, the __________ possible outcomes are the __________ of the set {1, 2, 3, 4, 5, 6} . __________ you want to __________ the probability of __________ a card naming a __________ less than 5. Then the __________ you are interested in are __________ of the set {1, 2, 3, 4} . This set is called an *event* in the sample space.

○
1. saluting
2. slashing
3. commanding
4. whacking
5. drawing

○
1. spats
2. disappointments
3. coaches
4. cards
5. brackets

○
1. six
2. frank
3. wispy
4. hoarse
5. fat

○
1. quarts
2. radii
3. rates
4. members
5. vertices

○
1. Cry
2. Suppose
3. Growl
4. Murmur
5. Betray

○
1. evaporate
2. determine
3. sacrifice
4. outwit
5. burst

○
1. wakening
2. drawing
3. rejecting
4. paddling
5. stowing

○
1. quart
2. ruler
3. yard
4. number
5. seller

○
1. outcomes
2. chats
3. chairmen
4. interiors
5. remedies

○
1. tallies
2. members
3. taxes
4. trapezoids
5. volumes

You are already familiar with __________ important tools used in __________, a compass and a __________ . We use the compass to __________ pictures of circles. A __________ is used to make __________ of straight lines. A __________ is a ruler which __________ no markings on it. This __________ that you cannot use a __________ for measuring.

○
1. vain
2. rich
3. two
4. sad
5. slippery

○
1. tax
2. commission
3. conclusion
4. power
5. geometry

○
1. vertex
2. column
3. kilometer
4. straightedge
5. mathematician

○
1. relate
2. don
3. scald
4. stir
5. draw

○
1. column
2. straightedge
3. polygon
4. difference
5. midpoint

○
1. weights
2. ostriches
3. lilies
4. provinces
5. pictures

○
1. decimeter
2. straightedge
3. triangle
4. product
5. discount

○
1. weans
2. has
3. films
4. glimpses
5. anchors

○
1. asks
2. embroiders
3. means
4. jeers
5. rinses

○
1. decimeter
2. trapezoid
3. straightedge
4. composite
5. quadrilateral

Like a point and a line, a __________ is an idea. A __________ extends without end. To __________ a plane, picture a __________ surface. The surface of a __________ or a table top is a __________ model of a plane. The __________ model does not have all the __________ of the plane-extending __________, for example. When considering __________ of a plane it is important to bear in mind that a plane is an idea.

○
1. plane
2. spy
3. bundle
4. vendor
5. diploma

○
1. radius
2. hospital
3. microscope
4. plane
5. clasp

○
1. buckle
2. show
3. shrink
4. advise
5. oppress

○
1. sour
2. molecular
3. modern
4. flat
5. retail

○
1. needle
2. wall
3. peasant
4. flank
5. vote

○
1. humorous
2. dreadful
3. joyous
4. scratchy
5. physical

○
1. reluctant
2. crude
3. porous
4. quick
5. physical

○
1. festivals
2. properties
3. members
4. windows
5. canaries

○
1. obediently
2. regally
3. gravely
4. infinitely
5. notably

○
1. plaques
2. properties
3. boulevards
4. trumpets
5. cantaloupes

There are instruments with which we can __________ to one thousandth of an __________ .

Many of the __________ for your car are __________ to thousandths of an __________ . A human hair is __________ 3 thousandths of an __________ thick. To write a __________ for 3 thousandths using base-ten __________ we make use of a place-value __________ .

○
1. measure
2. earn
3. intersect
4. borrow
5. tax

○
1. inch
2. abacus
3. interest
4. account
5. equal

○
1. uniforms
2. coasts
3. parts
4. serpents
5. matches

○
1. connected
2. carried
3. compared
4. measured
5. collected

○
1. inch
2. axis
3. operation
4. input
5. octagon

○
1. shortly
2. briskly
3. suspiciously
4. meekly
5. approximately

○
1. eighth
2. input
3. octagon
4. equal
5. inch

○
1. parallel
2. numeral
3. discount
4. tally
5. tax

○
1. cylinders
2. symbols
3. centers
4. compasses
5. verticals

○
1. chart
2. monument
3. raccoon
4. broom
5. force

The first 3 in 38.653 has a __________ value of 3 tens, or 30. The __________ 3 has the place __________ of 3 thousandths, or 3/1000. __________ that the names for the __________ after the decimal point __________ a *th* in them: __________, hundred*ths*, thousand*ths*, and so on.

The __________ of digits to the __________ of the decimal point is __________ the number of *decimal places*.

○
1. broken
2. screechy
3. place
4. sharp
5. humane

○
1. lacquered
2. second
3. honorary
4. upward
5. anxious

○
1. creed
2. crescent
3. bunny
4. stagger
5. value

○
1. Crumble
2. Smell
3. Taste
4. Notice
5. Burn

○
1. places
2. grunts
3. hustles
4. yanks
5. rangers

○
1. have
2. choke
3. impersonate
4. repair
5. twist

○
1. blockad*es*
2. click*s*
3. excus*es*
4. tradi*tions*
5. ten*ths*

○
1. formula
2. double
3. graph
4. perimeter
5. number

○
1. mutt
2. porter
3. effect
4. example
5. right

○
1. pasteurized
2. called
3. shoved
4. bailed
5. given

**You will recall that each __________ number has a *successor*. For __________, the successor of 2 is 3 and the __________ of 25 is 26. Every __________ number, except one of them, __________ a *predecessor*. For example, the __________ of 4 is 3 and the __________ of 21 is 20.**

**We __________ the natural numbers for __________, since each of them __________ a successor.**

○
1. husky
2. raw
3. whole
4. sticky
5. fussy

○
1. sex
2. example
3. balsam
4. macadam
5. wisdom

○
1. seal
2. warehouse
3. cavern
4. successor
5. amendment

○
1. whole
2. squirmy
3. gleeful
4. leaky
5. flinty

○
1. films
2. has
3. casts
4. warps
5. irons

○
1. predecessor
2. preparation
3. plateau
4. ammunition
5. response

○
1. predecessor
2. pronunciation
3. desertion
4. resident
5. antelope

○
1. annex
2. eat
3. prowl
4. use
5. humor

○
1. budgeting
2. counting
3. bisecting
4. estimating
5. dividing

○
1. hides
2. fires
3. has
4. feeds
5. saws

In your study you encounter mathematical __________ that are neither true nor __________ . For example, $x + 2 = 7$ is such a __________ . Not even a brilliant __________ can tell whether this __________ is true or false. __________ after replacing $x$ by some __________ could he tell whether the __________ statement is true or __________ . Sentences like $x + 2 = 7$, which are neither __________ nor false, are called *open sentences*.

○
1. broadsides
2. sentences
3. sheaths
4. outlaws
5. branches

○
1. false
2. genial
3. studious
4. inlaid
5. faithful

○
1. sentence
2. capsule
3. beloved
4. teammate
5. walrus

○
1. mathematician
2. intersection
3. yardstick
4. absolute
5. agreement

○
1. lantern
2. skeleton
3. dwelling
4. perfume
5. sentence

○
1. Wildly
2. Only
3. Keenly
4. Freshly
5. Dryly

○
1. input
2. length
3. numeral
4. account
5. octagon

○
1. flashing
2. duplicating
3. resulting
4. wincing
5. reporting

○
1. repulsive
2. creaky
3. false
4. regal
5. thrifty

○
1. lucky
2. true
3. comic
4. rich
5. busy

Directed numbers can be used in __________ everyday situations. In football __________ numbers can be used to __________ *gain* or *loss* in __________ . A positive number would be a __________ choice for the description of __________, and a negative number for the __________ of loss.

Directed numbers can be __________ to describe the status of your __________ team against the opponent. __________ numbers are used in telling the temperature.

○
1. gusty
2. many
3. frigid
4. feeble
5. frail

○
1. directed
2. snatched
3. decayed
4. disowned
5. invited

○
1. gurgle
2. press
3. spite
4. describe
5. sting

○
1. cream
2. yardage
3. crust
4. pneumonia
5. ammonia

○
1. handsome
2. black
3. logical
4. strenuous
5. quiet

○
1. shelter
2. fate
3. oak
4. force
5. gain

○
1. schoolroom
2. silver
3. description
4. cloak
5. abdomen

○
1. ladled
2. conquered
3. exempted
4. driven
5. used

○
1. basketball
2. creaky
3. select
4. unruly
5. artificial

○
1. Agitated
2. Lathered
3. Submerged
4. Prepared
5. Directed

To show that the digit 6 __________ to repeat, a *bar* is __________ over the digit. Thus, the __________ equivalent for 5/12 is $0.41\overline{6}$; that is, $5/12 = 0.41\overline{6}$ is __________ . Note that without the __________ over the 6, the "is __________ " symbol would have to be __________ . When the bar is __________ over more than one __________, it indicates that all the __________ under the bar repeat in the same order.

○
1. guesses
2. exchanges
3. loses
4. courts
5. continues

○
1. hurled
2. drawn
3. indulged
4. bicycled
5. killed

○
1. parallel
2. binary
3. diagonal
4. round
5. decimal

○
1. true
2. religious
3. beige
4. vile
5. sturdy

○
1. fiancé
2. delight
3. harm
4. bar
5. hobby

○
1. drastically
2. briskly
3. approximately
4. solely
5. unfortunately

○
1. stabbed
2. attracted
3. shrunk
4. conducted
5. used

○
1. shown
2. clenched
3. redeemed
4. bunted
5. heaped

○
1. coin
2. digit
3. mean
4. diagram
5. height

○
1. eighths
2. triangles
3. digits
4. pennies
5. halves

Recall that the set of natural __________ is closed under addition. The __________ of any pair of __________ numbers is a natural __________ . But the set of __________ numbers is not closed under __________ . The same is true of the __________ of all non-directed real __________ . There is no answer to the __________ of subtracting a larger __________ from a smaller number among non-directed numbers.

○
1. numbers
2. triangles
3. accounts
4. halves
5. ratios

○
1. yard
2. sum
3. line
4. proof
5. whole

○
1. bad
2. thorough
3. honorary
4. natural
5. logical

○
1. profit
2. product
3. polygon
4. account
5. number

○
1. natural
2. lanky
3. snug
4. rocky
5. static

○
1. commission
2. money
3. debt
4. subtraction
5. accuracy

○
1. monomial
2. set
3. cube
4. edge
5. oblique

○
1. earnings
2. numbers
3. volumes
4. inequalities
5. relations

○
1. hut
2. problem
3. passage
4. dialect
5. gauge

○
1. pint
2. number
3. discount
4. square
5. intersection

**Arthur has a backyard. His __________ wants to put a __________ on its boundary. The __________ of the backyard is a __________ . The backyard itself is a __________ *region*. To find the __________ of fence needed is to __________ the sum of the __________ of the four sides of the __________ . Recall that this sum is __________ the *perimeter* of the rectangle.**

○
1. **applause**
2. **accent**
3. **scheme**
4. **father**
5. **mistake**

○
1. **paddle**
2. **fence**
3. **glen**
4. **van**
5. **state**

○
1. *perfume*
2. *caboose*
3. *boundary*
4. *kitten*
5. *telephone*

○
1. *gallon*
2. *depth*
3. *distance*
4. *dime*
5. *rectangle*

○
1. *divisible*
2. *false*
3. *rectangular*
4. *finite*
5. *fractional*

○
1. **doctor**
2. **child**
3. **amount**
4. **gasp**
5. **bunny**

○
1. **bury**
2. **trick**
3. **find**
4. **bore**
5. **bathe**

○
1. **graphs**
2. **gallons**
3. **measures**
4. **meters**
5. **numerators**

○
1. **rectangle**
2. **pair**
3. **operation**
4. **interest**
5. **quart**

○
1. **propped**
2. **decorated**
3. **paid**
4. **stirred**
5. **called**

In the early years of the United States, ________ was officially measured in the English ________ of pounds, shillings, and ________ ("Pence" means "pennies"). One ________ was worth 1/12 of a ________; one shilling was worth 1/20 of a ________ . Thus there were 12 ________ in a shilling and 20 ________ in a pound. Many ________ thought this system was ________ hard to work with. One of them was Thomas Jefferson.

○
1. holly
2. consent
3. money
4. soap
5. autumn

○
1. thong
2. bride
3. apple
4. system
5. splint

○
1. pence
2. stuffs
3. youths
4. minds
5. parcels

○
1. penny
2. village
3. strip
4. siphon
5. spade

○
1. strap
2. shilling
3. balcony
4. magnet
5. plunge

○
1. broker
2. clam
3. pound
4. recipe
5. shelf

○
1. pence
2. people
3. barns
4. children
5. decks

○
1. shillings
2. debts
3. sandwiches
4. cottages
5. clients

○
1. ideas
2. kites
3. people
4. lengths
5. scalps

○
1. oddly
2. sadly
3. slowly
4. too
5. eagerly

The *greatest possible error* for any __________ is equal to one half the __________ of measure used.

__________ Frank measures a __________ to the nearest quarter __________ and finds the measure to be 20 __________ . What is the greatest __________ error for Frank's measurements? This __________ that the true length of the __________ is somewhere between 19 7/8 __________ and 20 1/8 inches.

○
1. triangle
2. endpoint
3. measurement
4. multiplicand
5. integer

○
1. unit
2. cat
3. magnet
4. kid
5. honey

○
1. Sing
2. Suppose
3. Whisper
4. Sigh
5. Realize

○
1. board
2. carrot
3. hunch
4. tavern
5. heart

○
1. inch
2. account
3. cone
4. chord
5. axis

○
1. digits
2. dimes
3. axes
4. nets
5. inches

○
1. fortunate
2. successful
3. possible
4. adjoining
5. humorous

○
1. tucks
2. paints
3. draws
4. nuzzles
5. means

○
1. board
2. jackal
3. signal
4. beak
5. dad

○
1. shapes
2. spheres
3. axioms
4. inches
5. pounds

In your study of mathematics through the __________ you learned that every __________ has many names. You __________ learned that there are __________ systems for writing number __________ .

If a symbol or a __________ of symbols names a __________, we call such a __________ or group of symbols a __________ . A system for writing __________ is called a *numeration system*.

○
1. ruts
2. kicks
3. versions
4. eagles
5. grades

○
1. curve
2. number
3. half
4. axiom
5. radius

○
1. thus
2. oddly
3. rudely
4. also
5. meekly

○
1. halfway
2. different
3. weekly
4. porous
5. spiritual

○
1. hunts
2. names
3. orioles
4. tears
5. graves

○
1. whip
2. fraud
3. savage
4. group
5. head

○
1. column
2. total
3. number
4. section
5. yard

○
1. converse
2. square
3. conjecture
4. symbol
5. power

○
1. *volume*
2. *rectangle*
3. *meter*
4. *yardstick*
5. *numeral*

○
1. budgets
2. accounts
3. segments
4. axioms
5. numerals

The set of all possible __________ of an experiment is the __________ space for the experiment. Any __________ of the sample space is __________ an *event*. The probability of an __________ is a number. The __________ is never less than 0, and it is __________ greater than 1.

An __________ event cannot happen. It __________ probability 0. A certain __________ must happen. It has probability 1.

○
1. treads
2. stalls
3. lands
4. hilltops
5. outcomes

○
1. sample
2. beady
3. perpetual
4. idle
5. clumsy

○
1. vertex
2. kilogram
3. octagon
4. multiple
5. subset

○
1. cleared
2. washed
3. called
4. polished
5. ravaged

○
1. exercise
2. omen
3. increase
4. opposite
5. event

○
1. logarithm
2. estimate
3. addend
4. number
5. discount

○
1. mournfully
2. specially
3. loyally
4. separately
5. never

○
1. impossible
2. overnight
3. insolent
4. expert
5. overcast

○
1. confronts
2. bonds
3. has
4. vents
5. stacks

○
1. note
2. cinema
3. chocolate
4. cove
5. event

As you know, a *curve*, or __________, is any plane figure that can be __________ on a surface without __________ the pencil from the __________; a *closed curve* is one that can be __________ by beginning and ending at the __________ point in a plane without __________; and a *simple closed* __________ is a closed curve that can be __________ without crossing the same __________ twice.

○
1. path
2. planet
3. parchment
4. subscription
5. sale

○
1. covered
2. drawn
3. crumpled
4. mended
5. dripped

○
1. scrapping
2. lifting
3. thrilling
4. slandering
5. accelerating

○
1. grease
2. surface
3. splendor
4. pinto
5. horde

○
1. dug
2. taunted
3. chosen
4. lapsed
5. drawn

○
1. legible
2. icy
3. same
4. poor
5. majestic

○
1. retracing
2. plopping
3. swinging
4. shoveling
5. sloshing

○
1. *column*
2. *degree*
3. *problem*
4. *curve*
5. *equal*

○
1. drawn
2. scoured
3. dignified
4. knocked
5. shaded

○
1. rectangle
2. diagram
3. debt
4. depth
5. point

Ray worked in the school __________ for 1/2 hour on Tuesday and Thursday and 1/3 __________ the other days of the __________ . How many hours did he __________ each week? To find the __________ to such problems, we must __________ fractional numbers. Addition of __________ numbers is required in __________ many everyday problems. They may __________ simple fractions as those __________ by the housewife or complicated fractions as those used by a technician.

○
1. refrain
2. cafeteria
3. mooring
4. monk
5. permit

○
1. porch
2. impulse
3. weasel
4. hour
5. gale

○
1. cinema
2. week
3. attraction
4. overhead
5. vineyard

○
1. outrage
2. calculate
3. catch
4. work
5. know

○
1. friction
2. wharf
3. answer
4. day
5. shipwreck

○
1. equal
2. solve
3. reverse
4. simplify
5. add

○
1. commutative
2. fractional
3. divisible
4. combined
5. diagonal

○
1. budgeting
2. regrouping
3. ranking
4. swaying
5. solving

○
1. destroy
2. taunt
3. involve
4. tolerate
5. slash

○
1. used
2. united
3. hung
4. sealed
5. inspected

The set whose members may be __________ in place of a __________ in an open sentence is __________ the replacement set. Each __________ of a replacement set whose __________ in place of a __________ results in a true __________ is called a solution of the __________ sentence. The process of __________ the solution (or solutions) of an __________ sentence is called *solving the open sentence*.

○
1. inspected
2. submerged
3. swung
4. enacted
5. named

○
1. composite
2. denominator
3. variable
4. converse
5. counter

○
1. built
2. walloped
3. transmitted
4. deflated
5. called

○
1. member
2. degree
3. calculation
4. median
5. compass

○
1. break
2. typewriter
3. anatomy
4. name
5. thunder

○
1. cone
2. column
3. perimeter
4. pyramid
5. variable

○
1. province
2. brigade
3. tailor
4. sentence
5. layer

○
1. mellow
2. loyal
3. open
4. leaky
5. rusty

○
1. finding
2. stringing
3. wearing
4. extinguishing
5. hanging

○
1. open
2. ugly
3. edible
4. adult
5. aerial

When we speak of an "angle of 20°", we __________ that the angle has a __________ of 20. Recall that, in __________ triangles, the sum of the __________ of the three angles is 180. If the __________ is a right triangle, then the __________ of the measures of the __________ acute angles is 90. Any __________ angles whose measures add __________ to 90 are said to be __________ .

○

1. defrost
2. strip
3. mean
4. hate
5. pray

○

1. collection
2. kilogram
3. dividend
4. measure
5. coin

○

1. outward
2. meager
3. all
4. bitter
5. wary

○

1. measures
2. earnings
3. endpoints
4. pints
5. diagrams

○

1. budget
2. profit
3. triangle
4. approximation
5. yardstick

○

1. ruler
2. coin
3. sum
4. volume
5. depth

○

1. muddy
2. dear
3. dark
4. two
5. civic

○

1. bad
2. two
3. prompt
4. coarse
5. stout

○

1. gaily
2. widely
3. slyly
4. blankly
5. up

○

1. complementary
2. quadratic
3. exponential
4. commercial
5. infinite

When you count money, or the number of __________ in the room, or the __________ in a finite set, your __________ is an *exact number*. Any __________ recount will give you the __________ number. Numbers from measurements, as we have __________ mentioned, are not exact but __________ . As has already been __________, you can always arrive at a __________ precise measurement by using __________ units and more precise instruments.

○
1. jays
2. wizards
3. avalanches
4. swamps
5. pupils

○
1. rhymes
2. folds
3. elements
4. quests
5. mutts

○
1. swallow
2. throng
3. abode
4. answer
5. daughter

○
1. joyful
2. shrill
3. memorial
4. correct
5. grim

○
1. toasty
2. light
3. husky
4. faint
5. same

○
1. impulsively
2. exquisitely
3. previously
4. belligerently
5. cruelly

○
1. *infinite*
2. *approximate*
3. *associative*
4. *divisible*
5. *commutative*

○
1. returned
2. stated
3. stained
4. obscured
5. defended

○
1. regally
2. more
3. furiously
4. sadly
5. slyly

○
1. shabbier
2. earlier
3. fainter
4. chillier
5. smaller

Our standard units of linear __________ are a relatively recent __________ . Early man used parts of his __________ as *reference units*. To __________ a small length, he __________ the width of a __________, a palm, or a __________ . To measure a longer __________, such as that of a __________ of cloth, he used an __________ arm, which is approximately one yard long.

○
1. percent
2. relation
3. cost
4. measure
5. input

○
1. development
2. department
3. president
4. compartment
5. apartment

○
1. chair
2. balsam
3. manner
4. blanket
5. body

○
1. equal
2. increase
3. reduce
4. subtract
5. measure

○
1. became
2. used
3. attached
4. fried
5. grieved

○
1. cough
2. gully
3. sprinkle
4. relation
5. thumb

○
1. hand
2. spit
3. second
4. graduate
5. roundup

○
1. length
2. pint
3. product
4. diagram
5. gallon

○
1. benefit
2. carnival
3. massacre
4. swamp
5. piece

○
1. excused
2. agreed
3. outstretched
4. elected
5. arranged

**If you came into a _____, and saw 4/3 written on the _____, you could not tell whether it _____ "four-thirds" or "four to _____ ." A common fraction can _____ a common rational number. It can _____ represent a ratio which is _____ a *single* number, but a _____ between *two* numbers. The _____ that the same numeral can be _____ for two concepts is not accidental.**

○
1. **classroom**
2. **silhouette**
3. **singer**
4. **crook**
5. **cherry**

○
1. **woodchuck**
2. **encouragement**
3. **chalkboard**
4. **sidewalk**
5. **cottonwood**

○
1. **led**
2. **meant**
3. **poisoned**
4. **lent**
5. **brought**

○
1. **cord**
2. **lead**
3. **three**
4. **yarn**
5. **grease**

○
1. **purchase**
2. **dip**
3. **sponsor**
4. **represent**
5. **interview**

○
1. *also*
2. *sweetly*
3. *violently*
4. *jealously*
5. *gloomily*

○
1. **solidly**
2. **continually**
3. **gaily**
4. **shrewdly**
5. **not**

○
1. **torch**
2. **superstition**
3. **snowball**
4. **commercial**
5. **relationship**

○
1. **fact**
2. **stream**
3. **vent**
4. **level**
5. **trickle**

○
1. **teased**
2. **blocked**
3. **finished**
4. **used**
5. **peeled**

A line segment may be __________ by using a ruler. An __________ may be measured by __________ a protractor. As the __________ is the unit of __________ on most rulers, the __________ is the unit of __________ on a protractor. From the __________ on the base of a __________, 180 rays can be __________ . The angle formed by two of these adjacent rays is called a *unit of angle measure of one degree*.

○
1. measured
2. found
3. contained
4. corrected
5. tallied

○
1. angle
2. equation
3. end
4. estimate
5. account

○
1. displaying
2. gathering
3. luring
4. costing
5. using

○
1. cylinder
2. inch
3. superset
4. diameter
5. chord

○
1. measure
2. adding
3. divisibility
4. net
5. division

○
1. zero
2. degree
3. triangle
4. parallel
5. equation

○
1. replacement
2. ratio
3. circumference
4. rank
5. measure

○
1. geometry
2. midpoint
3. perimeter
4. compass
5. pyramid

○
1. relation
2. quotient
3. factor
4. protractor
5. multiple

○
1. hidden
2. drawn
3. felt
4. frozen
5. heard

Fractions may indicate division. 6/3 __________ 6 ÷ 3. 6/6 __________ 6 ÷ 6. 6/12 __________ 6 ÷ 12. In the __________ 6/12, 6 is the __________ and 12 is the __________ . The numerator and the __________ are the *terms* of the __________ . A *fractional number* is the __________ of a whole number __________ by a counting number. Some fractional numbers are whole numbers. 20/5 names the whole number 4.

○
1. samples
2. sinks
3. indicates
4. controls
5. mistakes

○
1. indicates
2. attracts
3. scraps
4. schedules
5. risks

○
1. quadruples
2. lubricates
3. tears
4. meets
5. indicates

○
1. inch
2. height
3. multiplicand
4. shape
5. fraction

○
1. *variable*
2. *equivalent*
3. *numerator*
4. *kilometer*
5. *hexagon*

○
1. *relationship*
2. *hexagon*
3. *function*
4. *profit*
5. *denominator*

○
1. octagon
2. closure
3. inequality
4. conjecture
5. denominator

○
1. converse
2. fraction
3. radius
4. algorithm
5. parallel

○
1. coin
2. inverse
3. quotient
4. multiple
5. proportion

○
1. constructed
2. simplified
3. divided
4. conjectured
5. borrowed

Though you may not be __________ of it, you use the __________ behind the additive __________ to check the results of __________ problems. In the preceding __________, if you think "576 __________ away 298 is 278," you __________ by verifying that 298 plus 278 __________ 576. The check is __________ because subtraction is the __________ operation of addition.

○
1. shy
2. aware
3. sick
4. cautious
5. mournful

○
1. thinking
2. singing
3. weathering
4. whimpering
5. enforcing

○
1. curve
2. square
3. method
4. debt
5. degree

○
1. subtraction
2. vertical
3. absent
4. rectangular
5. infinite

○
1. bandanna
2. strategy
3. objection
4. readiness
5. problem

○
1. hop
2. nail
3. take
4. write
5. spring

○
1. snip
2. check
3. click
4. issue
5. leak

○
1. equals
2. ranks
3. budgets
4. curves
5. solves

○
1. skillfull
2. juvenile
3. sinister
4. possible
5. empty

○
1. inverse
2. metric
3. improper
4. binary
5. acute

Have you ever wondered where the __________ you work with came from? __________, people invented numbers as they __________ them to help them __________ care of daily chores. As our __________ became very complex, more __________ numbers were necessary to __________ with problems in physics, __________ and rocket construction, and __________ exploration. At times mathematicians __________ new numbers just for fun, but later these numbers became useful.

○
1. pennies
2. pints
3. dollars
4. numbers
5. volumes

○
1. Deeply
2. Downtown
3. Counterclockwise
4. Actually
5. Upstairs

○
1. worked
2. scoured
3. flipped
4. needed
5. fought

○
1. hide
2. punch
3. take
4. hop
5. seal

○
1. civilization
2. infection
3. slump
4. gash
5. branch

○
1. disguised
2. bracketed
3. complicated
4. amused
5. relaxed

○
1. ship
2. smile
3. mesh
4. deal
5. roll

○
1. immune
2. temporary
3. convenient
4. airplane
5. chatty

○
1. frosty
2. drugged
3. magnetic
4. convex
5. space

○
1. exiled
2. believed
3. invented
4. smothered
5. bicycled

As in addition, we must __________ some basic subtraction facts in __________ to be able to __________ large numbers. Actually, these __________ are contained in the __________ for addition of whole __________ and are based on the __________ between addition and subtraction. For __________, in the table we __________ that 8 + 7 = 15; it __________ then that 15 − 7 = 8 and 15 − 8 = 7.

○
1. fight
2. spark
3. suffer
4. know
5. tease

○
1. repeal
2. order
3. secrecy
4. dirt
5. courtship

○
1. intersect
2. bisect
3. budget
4. continue
5. subtract

○
1. halts
2. monograms
3. facts
4. generators
5. crabs

○
1. table
2. drum
3. fix
4. beginner
5. divide

○
1. quarts
2. checks
3. numbers
4. pyramids
5. distances

○
1. hydrant
2. poplar
3. minister
4. relation
5. sash

○
1. traffic
2. concern
3. virtue
4. scum
5. example

○
1. find
2. detach
3. float
4. censor
5. sell

○
1. follows
2. punishes
3. breathes
4. sweeps
5. towers

A circle is a simple closed curve, and it ________ a plane into three ________ of points: the region ________ to the circle, the ________ exterior to the circle, and the ________ itself. A circle has ________ but no area. When ________ about a circle in ________ language, we usually abbreviate the ________ "the area of the ________ region of the circle" and simply say "the area of the circle."

○
1. dips
2. illuminates
3. separates
4. knots
5. flares

○
1. debts
2. distances
3. lattices
4. costs
5. sets

○
1. scary
2. helpful
3. interior
4. excellent
5. navigable

○
1. powder
2. soul
3. region
4. typhoon
5. canary

○
1. circle
2. part
3. kilometer
4. division
5. amount

○
1. money
2. division
3. agreement
4. length
5. algebra

○
1. speaking
2. clipping
3. winking
4. fumbling
5. vomiting

○
1. everyday
2. ridiculous
3. fatal
4. probable
5. aloof

○
1. wink
2. porridge
3. keeper
4. pirate
5. phrase

○
1. quiet
2. stout
3. arctic
4. eerie
5. interior

An array of points like the 5-by-5 __________ is called a *finite* __________ *of points.* A finite __________ can have any finite __________ of rows and any __________ number of columns.

If the __________ of columns and rows is the same, the __________ is a *square lattice*. If the __________ of rows is different from the __________ of columns, the lattice is a __________ *lattice*.

○
1. division
2. digit
3. meter
4. rate
5. array

○
1. *lattice*
2. *double*
3. *pyramid*
4. *dividend*
5. *height*

○
1. value
2. edge
3. lattice
4. budget
5. integer

○
1. kilometer
2. axiom
3. number
4. pentagon
5. pound

○
1. odd
2. ordinal
3. commercial
4. finite
5. cardinal

○
1. number
2. seller
3. input
4. function
5. pyramid

○
1. monomial
2. nickel
3. compass
4. discount
5. lattice

○
1. dime
2. percentage
3. polygon
4. number
5. ruler

○
1. value
2. kilogram
3. number
4. meter
5. median

○
1. *correct*
2. *concurrent*
3. *real*
4. *negative*
5. *rectangular*

A parallelogram can be cut and the __________ rearranged to form a __________ with the same area. In the __________, if $b$ is the __________ of the base and $h$ the __________ of the height, the __________ of the resulting __________ is $b \times h$. The __________ $A = b \times h$ __________ the area of the __________ .

○

1. pavements
2. pieces
3. sewers
4. nations
5. mutts

○

1. conjecture
2. difference
3. rectangle
4. ruler
5. centimeter

○

1. power
2. commission
3. length
4. parallelogram
5. decimeter

○

1. length
2. conjecture
3. check
4. penny
5. octagon

○

1. coin
2. inverse
3. multiple
4. proportion
5. length

○

1. phase
2. score
3. area
4. drive
5. bridge

○

1. parallel
2. arithmetic
3. rectangle
4. reciprocal
5. protractor

○

1. bluster
2. authority
3. rhyme
4. formula
5. fold

○

1. snips
2. gives
3. hangs
4. overlooks
5. extinguishes

○

1. numerator
2. discount
3. parallelogram
4. digit
5. perimeter

Draw a circle with a 2-inch __________ . Choose three points on the __________; connect the points to __________ an inscribed triangle (a __________ inscribed in a circle). __________ the perimeter of the __________, measuring to the nearest 1/8-inch.

__________ and draw a different __________ . How does the __________ of this triangle compare with the __________ of the first triangle?

○

1. fraction
2. check
3. dollar
4. profit
5. radius

○

1. counter
2. number
3. check
4. conjecture
5. circle

○

1. form
2. survive
3. bathe
4. blur
5. smack

○

1. compass
2. problem
3. triangle
4. discount
5. value

○

1. Tow
2. Find
3. Shuck
4. Direct
5. Skim

○

1. triangle
2. parallel
3. coin
4. axis
5. factor

○

1. Fill
2. Yawn
3. Dissolve
4. Nuzzle
5. Repeat

○

1. converse
2. percent
3. triangle
4. pint
5. median

○

1. ruler
2. sphere
3. perimeter
4. profit
5. closure

○

1. pentagon
2. inverse
3. absolute
4. kilometer
5. perimeter

Commission is connected with the __________ made to a salesman. It is __________ given as a per __________ of the sale. If a __________ works on the basis of a __________ of 5%, he __________ $5 for every $100 worth of __________ he sells. The per __________ commission varies from company to __________ and from product to __________ .

○
1. payment
2. umbrella
3. instant
4. proprietor
5. chariot

○
1. perilously
2. orally
3. usually
4. selfishly
5. loudly

○
1. cent
2. cove
3. curio
4. crater
5. sink

○
1. wizard
2. salesman
3. bridge
4. trumpet
5. bunker

○
1. monogram
2. sunrise
3. projector
4. commission
5. discipline

○
1. betroths
2. recites
3. analyzes
4. receives
5. praises

○
1. lungs
2. claws
3. goods
4. homers
5. buttons

○
1. cent
2. ankle
3. mitten
4. god
5. rug

○
1. tobacco
2. company
3. marshal
4. shovel
5. soldier

○
1. placard
2. burial
3. barrier
4. planet
5. product

You have known how to ________ with the non-negative rational ________ for several years. One of the ________ you learned rather early is that ________ is not always possible in this ________ . For example, you cannot ________ 10 from 3 1/2 and ________ a positive rational number or ________ as the difference. We ________ that the set of non-negative ________ numbers is *not* closed under subtraction.

○
1. collect
2. subtract
3. construct
4. intersect
5. complete

○
1. conjectures
2. diameters
3. medians
4. mathematics
5. numbers

○
1. textures
2. feuds
3. things
4. skies
5. vacuums

○
1. money
2. numeration
3. subtraction
4. commission
5. approximation

○
1. tax
2. net
3. interest
4. set
5. triangle

○
1. estimate
2. subtract
3. budget
4. construct
5. rank

○
1. appoint
2. throw
3. balance
4. dump
5. obtain

○
1. debt
2. zero
3. gain
4. profit
5. money

○
1. clink
2. bark
3. yelp
4. sing
5. say

○
1. collinear
2. rational
3. binary
4. reciprocal
5. rectangular

We observed some patterns in __________ of directed numbers. Here is a __________ of what we observed.

The __________ of two positive numbers is a __________ number. The sum of __________ negative numbers is a __________ number. The sum of __________ numbers which are additive __________ is 0. The sum of a __________ number and a negative __________ is sometimes a positive number, sometimes a negative number.

○
1. conclusion
2. commission
3. collection
4. addition
5. depth

○
1. regime
2. target
3. summary
4. broadside
5. whisker

○
1. length
2. bisector
3. yard
4. sum
5. power

○
1. consecutive
2. congruent
3. fractional
4. positive
5. maximum

○
1. appropriate
2. two
3. molar
4. serene
5. lame

○
1. rectangular
2. parallel
3. negative
4. collinear
5. converse

○
1. comic
2. bulky
3. drab
4. two
5. gentle

○
1. compasses
2. gallons
3. inverses
4. costs
5. cubes

○
1. cylindrical
2. complementary
3. false
4. positive
5. diagonal

○
1. meter
2. gallon
3. graph
4. edge
5. number

You have been working with number systems for a __________ time. As a result of this __________, you have learned to __________ certain properties of number __________ . For example, you know that we can __________ the natural numbers to __________ 1, 2, 3, 4, . . ., and that this __________ process may be continued __________ . You have also learned from __________ that when we add __________ natural numbers, the result is another natural number.

○
1. crusty
2. handy
3. willing
4. long
5. hurried

○
1. mineral
2. experience
3. scream
4. armory
5. clipper

○
1. whimper
2. accept
3. repair
4. subdue
5. sell

○
1. systems
2. frontiers
3. approvals
4. silhouettes
5. coats

○
1. shiver
2. plug
3. pivot
4. use
5. float

○
1. divide
2. count
3. solve
4. compute
5. regroup

○
1. replacing
2. defining
3. counting
4. containing
5. squaring

○
1. divinely
2. already
3. stiffly
4. doubtfully
5. forever

○
1. misconduct
2. injury
3. grease
4. experience
5. skin

○
1. choppy
2. two
3. giddy
4. tedious
5. poor

The shape of a basketball is a ________ . It may be described as a ________, each point of which is the ________ distance from a fixed ________ within, called the center. The ________ of a sphere is a ________ segment which extends from the ________ to any point on the ________ . The volume of a ________ is equal to four ________ of the product of π and the cube of the radius.

○
1. pentagon
2. parallel
3. radius
4. half
5. sphere

○
1. sentinel
2. surface
3. factory
4. blemish
5. terminal

○
1. slim
2. same
3. furry
4. modern
5. temporary

○
1. point
2. compass
3. inverse
4. octagon
5. discount

○
1. pound
2. total
3. cost
4. digit
5. radius

○
1. cardinal
2. cumulative
3. converse
4. metric
5. line

○
1. blizzard
2. center
3. umbrella
4. revelation
5. genius

○
1. sphere
2. proportion
3. quotient
4. subtraction
5. sum

○
1. dime
2. sphere
3. zero
4. value
5. lattice

○
1. cones
2. columns
3. accounts
4. thirds
5. edges

A polynomial is sometimes described as a ________ or the sum of ________ or more monomials. When the ________ consists of only two ________, it is called a ________; when it consists of only ________ terms, it is called a ________ . Mathematicians generally use the ________ polynomial to describe an ________ of two or more ________ and the word monomial for an expression of only one term.

○
1. monomial
2. theorem
3. coordinate
4. commission
5. decimeter

○
1. scarce
2. popular
3. two
4. atomic
5. hollow

○
1. divisibility
2. polynomial
3. protractor
4. reciprocal
5. inequality

○
1. revolutions
2. eyelashes
3. terms
4. ladies
5. cinemas

○
1. negative
2. hexagon
3. binomial
4. function
5. profit

○
1. three
2. latter
3. valiant
4. pretty
5. last

○
1. proportion
2. polygon
3. denominator
4. trinomial
5. relationship

○
1. gear
2. word
3. evidence
4. pony
5. emerald

○
1. offer
2. expression
3. inlet
4. excuse
5. island

○
1. bosses
2. men
3. crinkles
4. terms
5. kimonos

Draw pairs of circles of __________ sizes and in different __________ positions. Draw line __________ which are tangent to __________ circles. Draw also the __________ to the points where the __________ meet the circles. __________ how many different polygons you can __________ from the tangents and __________ . List the properties of each __________ .

○
1. thrifty
2. different
3. tame
4. precious
5. medical

○
1. relative
2. scheming
3. artificial
4. blunt
5. fragile

○
1. computers
2. rulers
3. gains
4. segments
5. means

○
1. good
2. both
3. adverse
4. debatable
5. vicious

○
1. taxes
2. numbers
3. radii
4. pentagons
5. digits

○
1. budgets
2. divisions
3. denominators
4. meters
5. tangents

○
1. Roast
2. Stage
3. Blow
4. See
5. Film

○
1. make
2. float
3. plunk
4. amuse
5. heat

○
1. pounds
2. perimeters
3. discount
4. commissions
5. radii

○
1. lattice
2. polygon
3. exponent
4. percent
5. discount

11 19 01 05 06 **M 19-8**

If the solution set of an ______________ in x and y is not the ______________ set, it is an ______________ of a set of ______________ pairs. The graph of the ______________ set is called the ______________ of the given ______________. A first-degree equation in x and y ______________ a straight line as its ______________. In other words, its ______________ is the set of all the points on some straight line.

○
1. exponent
2. axis
3. equation
4. account
5. inch

○
1. curved
2. empty
3. odd
4. cubed
5. parallel

○
1. orphan
2. heiress
3. expert
4. example
5. eyelash

○
1. ordered
2. commercial
3. distributed
4. scalene
5. concentric

○
1. improper
2. concave
3. lateral
4. solution
5. divisible

○
1. leg
2. lattice
3. graph
4. maximum
5. depth

○
1. cosine
2. equation
3. supplement
4. closure
5. syllogism

○
1. disappoints
2. plunks
3. nets
4. has
5. squirts

○
1. sphere
2. graph
3. element
4. area
5. arc

○
1. decagon
2. focus
3. graph
4. base
5. face

If two points on a line are ______________, the equation of the ______________ may be expressed in the two-point ______________ or, if the ______________ are on the axes, in the ______________ form. If one point on a ______________ and the slope of the ______________ are known, the equation of the ______________ may be expressed in the point-slope ______________ or, if the ______________ is on the y-axis, in the slope-intercept form.

○
1. halted
2. sloshed
3. known
4. acclaimed
5. swung

○
1. lattice
2. line
3. triangle
4. ruler
5. compass

○
1. computer
2. multiple
3. polygon
4. form
5. diagram

○
1. compasses
2. points
3. commissions
4. coins
5. addends

○
1. round
2. intercept
3. cubed
4. absent
5. equiangular

○
1. zero
2. portion
3. line
4. quart
5. dollar

○
1. dividend
2. line
3. remainder
4. cube
5. coin

○
1. seller
2. subset
3. radian
4. quadrant
5. line

○
1. cost
2. quarrel
3. form
4. craft
5. speck

○
1. denominator
2. sphere
3. interpolation
4. point
5. gallon

Consider the set of positive real numbers. Do you ______________ that the set of ______________ numbers does have at least one ______________ which is closed with ______________ to multiplication and addition? Furthermore, any ______________ number is either a ______________ number, zero, or its ______________ is a positive number.

When a ______________ has these two additional ______________, we say that it is an ______________ field. Let us summarize these two properties for the positive numbers.

○
1. vow
2. allude
3. see
4. signify
5. chuckle

○
1. diagonal
2. obtuse
3. vertical
4. improper
5. real

○
1. gallon
2. cube
3. orthocenter
4. subset
5. radian

○
1. respect
2. effort
3. conviction
4. treatment
5. insurance

○
1. polar
2. real
3. convex
4. reflexive
5. lateral

○
1. scalene
2. right
3. lateral
4. circular
5. positive

○
1. sponsor
2. hemlock
3. entrance
4. opposite
5. barnacle

○
1. spine
2. field
3. hoist
4. sect
5. palm

○
1. characteristics
2. reciprocals
3. columns
4. dollars
5. rectangles

○
1. evoked
2. ordered
3. engrossed
4. opened
5. accustomed

12 19 01 05 05 M 19-11

In elementary geometry you found areas only of figures ______________ by straight lines and ______________ of circles or portions of ______________. As soon as we ______________ other plane figures it becomes ______________ to decide what it is we are ______________ to find. In other ______________, we need a precise ______________ of the thing to be ______________.

Of course, everyone has ______________ intuitive feelings about the meaning of area and, given an irregular shape drawn on coordinate paper, could estimate the area by counting squares.

○
1. prosecuted
2. loathed
3. nuzzled
4. taught
5. bounded

○
1. commissions
2. pyramids
3. triangles
4. areas
5. dollars

○
1. circles
2. sellers
3. images
4. points
5. abacuses

○
1. wallop
2. consider
3. startle
4. frisk
5. bottle

○
1. temporary
2. useless
3. porous
4. necessary
5. illegal

○
1. trying
2. screaming
3. galloping
4. shoveling
5. writhing

○
1. barns
2. words
3. stars
4. bites
5. gifts

○
1. coin
2. quart
3. compass
4. commission
5. definition

○
1. taxed
2. earned
3. borrowed
4. calculated
5. abbreviated

○
1. strong
2. culinary
3. soggy
4. purple
5. barefoot

The Fahrenheit temperature on the ________ of the moon can ________ from more than 215 ________ above zero to less than 215 ________ below zero. Suppose the ________ pack carried by an ________ indicates the number 215 as the ________ of the moon's surface where he has ________ . What other information should he ________ before making adjustments on his ________ suit?

○
1. bunkhouse
2. rebellion
3. snowflake
4. surface
5. pickle

○
1. pedal
2. seat
3. range
4. schedule
5. affect

○
1. gangs
2. degrees
3. shields
4. cowards
5. periods

○
1. flaws
2. peas
3. recipes
4. suitors
5. degrees

○
1. genial
2. intangible
3. affectionate
4. malicious
5. instrument

○
1. uproar
2. incident
3. astronaut
4. emperor
5. earthquake

○
1. tapeworm
2. thyroid
3. temperature
4. uterus
5. intestine

○
1. whistled
2. prayed
3. landed
4. hung
5. lisped

○
1. touch
2. cleave
3. have
4. wail
5. scorch

○
1. bony
2. space
3. drowsy
4. marble
5. extinct

Estimates are useful to develop our __________ sense and to detect __________ that are obviously wrong. However, the __________ process of computation is __________ many times. We could __________ land a rocket on the __________, or manufacture a transistor __________ if we depended only on __________ . If we tried, the __________ might never come close to the __________, and the radio might never tune in a station.

○
1. round
2. number
3. adjacent
4. parallel
5. mixed

○
1. buffets
2. anvils
3. fluids
4. answers
5. slumps

○
1. slimy
2. bent
3. sultry
4. exact
5. remote

○
1. necessary
2. juvenile
3. humane
4. disastrous
5. mournful

○
1. not
2. abruptly
3. slyly
4. oddly
5. orally

○
1. clue
2. bed
3. moon
4. pupil
5. pint

○
1. rip
2. groom
3. tunic
4. thief
5. radio

○
1. integers
2. equations
3. estimates
4. hundredths
5. multiplications

○
1. rocket
2. rag
3. paw
4. part
5. tenant

○
1. hit
2. coal
3. moon
4. vessel
5. valley

In a decimal numeral for a large __________ number, commas are used to __________ the digits into periods, or __________, of no more than __________ digits each, beginning at the __________ .

Commas are used in __________ for large numbers to __________ the reading of the __________ easier. Since one-, two-, three-, and four-digit __________ are easy to read, __________ are often used only in numerals of more than four digits.

○
1. illegal
2. whole
3. shiny
4. shabby
5. harsh

○
1. separate
2. reverse
3. trade
4. punch
5. disguise

○
1. slaves
2. groups
3. reefs
4. eves
5. priests

○
1. holy
2. three
3. sneaky
4. puffy
5. sober

○
1. schedule
2. check
3. journey
4. war
5. right

○
1. gains
2. triangles
3. inputs
4. numerals
5. values

○
1. taste
2. make
3. forget
4. feel
5. entice

○
1. proofs
2. costs
3. rectangles
4. numerals
5. dimes

○
1. numerals
2. sellers
3. heights
4. bisectors
5. pentagons

○
1. blends
2. quacks
3. chefs
4. commas
5. ruffles

When you study mathematics, you not only __________ number and numeration systems, but you __________ study the branch of __________ called *geometry*. The root *geo* __________ "earth," and *meter* means "__________"; so the word *geometry* __________ means "earth measure." And in its __________ beginnings, the concepts of __________ were used for just that—to __________ the earth. Early Egyptians are __________ with many of the beginning concepts of geometry.

○
1. groom
2. stammer
3. slander
4. study
5. suffer

○
1. also
2. impudently
3. dryly
4. crisply
5. cheaply

○
1. mathematics
2. debt
3. notation
4. commission
5. money

○
1. pans
2. laments
3. cleanses
4. means
5. regains

○
1. money
2. measure
3. median
4. converse
5. octagon

○
1. hoarsely
2. especially
3. abominably
4. literally
5. furiously

○
1. last
2. foamiest
3. earliest
4. sternest
5. firmest

○
1. geometry
2. division
3. volume
4. percent
5. money

○
1. replace
2. reduce
3. carry
4. approximate
5. measure

○
1. credited
2. bought
3. thumbed
4. cured
5. browsed

The area measure of any right __________ can be found by __________ A = 1/2$ba$, where $b$ __________ for the base measure and $a$ __________ for the altitude measure upon that __________ .

If a triangle is __________ a right triangle, draw an __________ (a line segment from a __________ perpendicular to the opposite __________) to form a right __________ . Then you can find the area measure of any triangle.

○
1. triangle
2. exponent
3. inverse
4. product
5. account

○
1. kissing
2. nudging
3. killing
4. singing
5. using

○
1. stands
2. hides
3. cries
4. flies
5. spits

○
1. stands
2. yells
3. pays
4. competes
5. calls

○
1. seller
2. base
3. mean
4. ratio
5. problem

○
1. not
2. busily
3. eternally
4. centrally
5. weakly

○
1. altitude
2. aisle
3. isthmus
4. appendix
5. appearance

○
1. vertex
2. quart
3. dollar
4. gallon
5. sum

○
1. bag
2. receptacle
3. side
4. cue
5. democrat

○
1. triangle
2. tally
3. value
4. graph
5. lattice

In the past you have had some __________ in making your own __________ graphs. You will recall that you __________ a compass to draw a __________ of a circle and a __________ to measure off angles.

There was __________ some computing necessary before __________ what size angles to __________ off. You need to __________ in mind that in __________ graphs, the entire circular region represents 100%.

○
1. rope
2. consolation
3. experience
4. prince
5. visit

○
1. absent
2. ordinal
3. finite
4. circle
5. acute

○
1. needed
2. ignited
3. hypnotized
4. banished
5. paced

○
1. moral
2. teammate
3. levee
4. picture
5. quack

○
1. protractor
2. figure
3. coefficient
4. profit
5. hundredth

○
1. casually
2. nowhere
3. always
4. shortly
5. consecutively

○
1. ringing
2. cleaving
3. cooking
4. buying
5. knowing

○
1. staple
2. weld
3. yield
4. mark
5. ask

○
1. achieve
2. dread
3. dive
4. keep
5. obstruct

○
1. maximum
2. ordinal
3. acute
4. circle
5. false

We can discover some properties of the __________ and cotangent by observing __________ of numbers in relation to the __________ of the sides of a __________ triangle. The ratio of the __________ of the legs in a __________ triangle can be any __________ different from 0. The __________ is a ratio of the __________ of the legs in a __________ triangle.

Conclusion: The tangent can be any number different from 0.

○
1. nibble
2. tangent
3. acreage
4. deerskin
5. tobacco

○
1. properties
2. tans
3. hours
4. fishermen
5. collapses

○
1. protractors
2. remainders
3. factors
4. lengths
5. examples

○
1. comic
2. wooden
3. muscular
4. right
5. powdery

○
1. bisectors
2. obliques
3. measures
4. reciprocals
5. polynomials

○
1. dishonest
2. monotonous
3. guilty
4. right
5. peaceful

○
1. computer
2. depth
3. number
4. debt
5. theorem

○
1. stall
2. profile
3. tangent
4. toss
5. veteran

○
1. reverses
2. pentagons
3. pyramids
4. symmetries
5. measures

○
1. squirmy
2. shadowy
3. right
4. funny
5. meager

**The kind of sequence, where each __________ after the first may be __________ by multiplying the preceding __________ by a constant multiplier, is __________ a *geometric progression*. The __________ multiplier may be positive or __________ . An interesting thing __________ when a negative number is __________ as a constant multiplier. __________ starting with 1 and __________ −2 as a multiplier. List the first few terms of the sequence.**

○

1. elephant
2. geography
3. term
4. hiccup
5. opponent

○

1. ridden
2. found
3. emphasized
4. excused
5. troubled

○

1. buckskin
2. cottage
3. sink
4. term
5. time

○

1. flushed
2. worked
3. mutilated
4. called
5. opened

○

1. ridiculous
2. constant
3. disagreeable
4. exceeding
5. difficult

○

1. mathematical
2. linear
3. infinite
4. common
5. negative

○

1. produces
2. photographs
3. happens
4. advertises
5. thanks

○

1. weeded
2. used
3. restrained
4. stowed
5. battled

○

1. Dash
2. Chew
3. Sigh
4. Enjoy
5. Try

○

1. using
2. baiting
3. implying
4. wiring
5. accusing

You have learned that the solution __________ of an open sentence in __________ variables consists of a __________ of ordered pairs of __________ . If the equation is __________, the graph of the __________ set is a straight __________ . For a *quadratic equation*, the __________ will not be a __________ line, and we need to __________ a sufficient number of points in order to determine the shape of the curve.

○
1. cube
2. set
3. half
4. inch
5. coin

○
1. lanky
2. high
3. sly
4. atomic
5. two

○
1. chord
2. median
3. side
4. set
5. net

○
1. data
2. relationships
3. squares
4. octagons
5. numbers

○
1. exact
2. linear
3. fractional
4. absent
5. consecutive

○
1. positive
2. assigned
3. solution
4. irrational
5. metric

○
1. absolute
2. line
3. part
4. square
5. inch

○
1. closure
2. converse
3. graph
4. alternate
5. conjecture

○
1. notable
2. powdery
3. zigzag
4. straight
5. favorable

○
1. locate
2. originate
3. salvage
4. shout
5. battle

In the previous chapter we __________ open sentences that were __________ or false for specific __________ of the variable used. For __________, the sentence $x + 3 = 8$ is __________ when $x = 5$ and is __________ in all other __________ . In this chapter we shall __________ sentences that involve two __________ and learn how to __________ and graph their solution sets.

○
1. muffled
2. conceived
3. fumigated
4. discussed
5. nibbled

○
1. woolen
2. true
3. timid
4. vital
5. sorrowful

○
1. farewells
2. entertainments
3. replacements
4. histories
5. wrinkles

○
1. butler
2. shame
3. example
4. appendicitis
5. blessing

○
1. hollow
2. true
3. foul
4. arctic
5. muddy

○
1. salty
2. curious
3. sandy
4. bulky
5. false

○
1. massages
2. cases
3. fictions
4. cathedrals
5. trenches

○
1. imprison
2. torment
3. inoculate
4. examine
5. denounce

○
1. tallies
2. variables
3. yardsticks
4. costs
5. midpoints

○
1. repeal
2. find
3. waste
4. thrust
5. spin

Distance in the physical world is __________ (approximately) by using some __________ of measuring device. As you __________, several different units are __________ marked on each measuring __________ . And, the number you __________ for the distance when __________ one of these devices __________ on the choice of "__________ ." For example, a ruler might be __________ to determine the distance from one point in space to another.

○
1. proclaimed
2. transplanted
3. determined
4. squeezed
5. fulfilled

○
1. remark
2. kind
3. inning
4. hand
5. battery

○
1. stay
2. sulk
3. copy
4. run
5. know

○
1. usually
2. tenderly
3. innocently
4. quickly
5. nervously

○
1. eaves
2. player
3. dingo
4. device
5. victim

○
1. raid
2. relax
3. get
4. bore
5. boil

○
1. using
2. nicking
3. lifting
4. weeding
5. honking

○
1. depends
2. flings
3. catches
4. limps
5. gardens

○
1. deed
2. unit
3. feeling
4. print
5. design

○
1. dyed
2. mourned
3. used
4. submitted
5. tamed

It is important to define __________ what it means to __________ that two geometric objects are __________ . Recall that a congruence is a __________ type of one-to-one __________ (or one-to-one __________) between two point-sets. What is __________ about it? A __________ is also a special __________ of one-to-one __________ between point-sets.

○
1. casually
2. loudly
3. exactly
4. happily
5. secretly

○
1. moan
2. yelp
3. pray
4. quack
5. say

○
1. profound
2. ridiculous
3. prosperous
4. similar
5. critical

○
1. primitive
2. capable
3. horrible
4. cheerful
5. special

○
1. calculation
2. correspondence
3. divisibility
4. conjecture
5. kilometer

○
1. welding
2. rigging
3. hiding
4. paying
5. mapping

○
1. disgusting
2. special
3. latched
4. stocky
5. halfway

○
1. *mechanism*
2. *similarity*
3. *quotation*
4. *descendent*
5. *convenience*

○
1. fable
2. quarter
3. type
4. bucket
5. helicopter

○
1. eating
2. kicking
3. mapping
4. propelling
5. spitting

**Probably most of the reflections you are __________ with are reflections of __________ in *space*. Reflections form a __________ for studying various properties of __________ figures. The idea of __________ is quite familiar to you. Every __________ you look into a __________, you see a reflection __________ of yourself. Reflection images are __________ in many other places such as on the __________ in lakes and pools, in windows, and in other shiny surfaces.**

○
1. **obscure**
2. **strenuous**
3. **apparent**
4. **thirsty**
5. **familiar**

○
1. **spectaculars**
2. **dramas**
3. **tarpaulins**
4. **objects**
5. **vowels**

○
1. **basis**
2. **hatch**
3. **fig**
4. **bunny**
5. **pact**

○
1. **absent**
2. **cardinal**
3. **negative**
4. **geometric**
5. **binary**

○
1. **immunity**
2. **reflection**
3. **glucose**
4. **marijuana**
5. **infection**

○
1. **wink**
2. **time**
3. **band**
4. **museum**
5. **mitten**

○
1. **signal**
2. **mirror**
3. **denial**
4. **tusk**
5. **graft**

○
1. **income**
2. **hiccup**
3. **clock**
4. **image**
5. **skunk**

○
1. **seen**
2. **drunk**
3. **patented**
4. **cooked**
5. **doomed**

○
1. **custodian**
2. **water**
3. **cottage**
4. **treat**
5. **cause**

The *Cartesian product* of $X$ and $Y$ is the __________ of all ordered pairs $(x,y)$, where $x$ __________ to $X$ and $y$ __________ to $Y$. To draw the __________ of $X \times Y$, we __________ a pair of perpendicular __________ called the *coordinate axes*. One __________ is usually vertical, the other, __________ . The vertical line, or __________, is labeled the *y-axis*, the __________ line is the *x-axis*.

○
1. pint
2. debt
3. vertex
4. set
5. tax

○
1. talks
2. leaps
3. hops
4. proclaims
5. belongs

○
1. belongs
2. sells
3. recites
4. gurgles
5. wobbles

○
1. kilogram
2. numerator
3. depth
4. graph
5. distance

○
1. ring
2. sniff
3. stiffen
4. use
5. open

○
1. products
2. inequalities
3. negatives
4. lines
5. estimates

○
1. tally
2. fraction
3. line
4. plus
5. ratio

○
1. horizontal
2. metric
3. rational
4. finite
5. negative

○
1. quart
2. discount
3. symmetry
4. axis
5. rate

○
1. horizontal
2. collinear
3. radical
4. fractional
5. maximum

At some early time it must have been __________ that two fastenings were __________ to hold a board in __________, which is the carpenter's __________ of *two points determine a* __________ . Many similar concepts about __________ and forms used in __________ must also have been __________ at an early date, since a __________ of practical geometry is __________ in making square corners and securing roofs.

○
1. prayed
2. chanted
3. whispered
4. discovered
5. groaned

○
1. sufficient
2. sullen
3. flowery
4. intriguing
5. ashamed

○
1. scum
2. brew
3. place
4. disgrace
5. poverty

○
1. equivalent
2. hypotenuse
3. algorithm
4. denominator
5. discount

○
1. *quart*
2. *value*
3. *trapezoid*
4. *line*
5. *graph*

○
1. tenors
2. gongs
3. shapes
4. welts
5. tuitions

○
1. filming
2. roasting
3. casting
4. building
5. charging

○
1. weeded
2. tossed
3. rung
4. known
5. returned

○
1. philanthropist
2. gull
3. campaign
4. knowledge
5. howl

○
1. bulky
2. essential
3. sugared
4. partial
5. municipal

It is known that if the ______________ remains constant, then the ______________ of an enclosed gas is ______________ proportional to the volume. The ______________ of a certain ______________ within a spherical balloon of ______________ 9 inches is 20 ______________ per square inch. If the ______________ of the balloon ______________ to 12 inches, find the ______________ pressure of the gas.

○
1. court
2. temperature
3. visitor
4. rumor
5. kingdom

○
1. magazine
2. artery
3. cookie
4. pressure
5. ground

○
1. attentively
2. sadly
3. inversely
4. shortly
5. nightly

○
1. limb
2. ladder
3. hospitality
4. claimant
5. pressure

○
1. anchor
2. sun
3. vow
4. gas
5. baton

○
1. assumption
2. sequence
3. transformation
4. union
5. radius

○
1. computers
2. pounds
3. axes
4. vertices
5. exponents

○
1. radius
2. triangle
3. addend
4. denominator
5. parabola

○
1. increases
2. collects
3. constructs
4. ranks
5. carries

○
1. open
2. new
3. tame
4. sheer
5. bald

The domain of a polynomial in x is the ______________ of possible values (______________) of the variable x. However, whenever we ______________ a real polynomial, we shall ______________ that the domain is the ______________ of real numbers. The ______________ of any real polynomial ______________ [(x, p(x) )] is "______________"; that is, the curve may be ______________ by a point moving in a ______________ motion from left to right.

○
1. transversal
2. mantissa
3. ray
4. face
5. set

○
1. domain
2. swamp
3. sheriff
4. tribe
5. spindle

○
1. graph
2. postulate
3. intercept
4. curve
5. borrow

○
1. bleat
2. assume
3. scream
4. lament
5. bequeath

○
1. double
2. digit
3. nickle
4. mode
5. set

○
1. account
2. sphere
3. graph
4. edge
5. money

○
1. pyramid
2. quadrant
3. ellipse
4. commission
5. function

○
1. speechless
2. hilarious
3. voluptuous
4. dauntless
5. continuous

○
1. traced
2. humiliated
3. screwed
4. recruited
5. ground

○
1. continuous
2. sumptuous
3. mundane
4. golden
5. primitive

A number that cannot be written as the ______________ of an integer and a ______________ number is an irrational ______________. Further, irrational numbers cannot be ______________ as terminating, or as ______________, repeating decimals.

The ______________ of the set of ______________ numbers with the set of ______________ numbers is R, the ______________ of real numbers.

The ______________ between the set of real numbers, R, and its subsets are shown.

○
1. ratio
2. quart
3. sphere
4. section
5. lattice

○
1. diffident
2. natural
3. lame
4. confident
5. fanciful

○
1. pyramid
2. ruler
3. dollar
4. number
5. vertex

○
1. electrocuted
2. clutched
3. disengaged
4. bewitched
5. represented

○
1. postulating
2. hypothesizing
3. borrowing
4. substituting
5. nonterminating

○
1. binomial
2. circle
3. logic
4. cube
5. union

○
1. lateral
2. rational
3. exterior
4. scalene
5. commercial

○
1. diagonal
2. equilateral
3. irrational
4. concave
5. obtuse

○
1. point
2. set
3. face
4. angle
5. ruler

○
1. relationships
2. substitutes
3. centimeters
4. denominators
5. trapezoids

Each complex number a + bi ______________ a unique ordered ______________ (a, b) of real ______________. The corresponding point P(a, b) in a ______________ plane will be called the ______________ representation of a + bi. To ______________ that we are assigning ______________ numbers to points in a ______________, the point P(a, b) will be ______________ a + bi. A ______________ plane, with a complex number assigned to each point, is referred to as the complex plane instead of the xy-plane.

○
1. postulates
2. abbreviates
3. taxes
4. determines
5. costs

○
1. pair
2. coin
3. plus
4. inch
5. edge

○
1. prisms
2. edges
3. tangents
4. numbers
5. modes

○
1. concave
2. cardinal
3. convex
4. coordinate
5. commercial

○
1. interior
2. obtuse
3. skew
4. equidistant
5. geometric

○
1. chuckle
2. sputter
3. emphasize
4. mourn
5. threaten

○
1. complex
2. conic
3. reflexive
4. scalene
5. lateral

○
1. postulate
2. syllogism
3. binomial
4. plane
5. nickle

○
1. labeled
2. granulated
3. blessed
4. crinkled
5. crowned

○
1. commercial
2. negative
3. reflexive
4. coordinate
5. distributive

Knowledge of trigonometric functions is __________ useful in computing measures of __________ objects or distances. Suppose, for __________, we want to compute the __________ of an erected flagpole without __________ it. To do this, we __________ to have an instrument which __________ an angle between the __________ of your eye level and the __________ of the pole. One __________ instrument is a transit.

○
1. thoughtfully
2. finally
3. slowly
4. coldly
5. very

○
1. faint
2. humane
3. inaccessible
4. primitive
5. prime

○
1. disgrace
2. renewal
3. example
4. buoyancy
5. possibility

○
1. collection
2. hundredth
3. gallon
4. height
5. degree

○
1. climbing
2. spiking
3. singing
4. disowning
5. swallowing

○
1. sneer
2. need
3. share
4. doze
5. ferment

○
1. approximates
2. reduces
3. earns
4. budgets
5. measures

○
1. factor
2. cost
3. octagon
4. digit
5. line

○
1. splendor
2. heathen
3. top
4. gorge
5. day

○
1. cool
2. dreary
3. genial
4. opposite
5. such

In ancient Egypt, surveyors used a knotted __________ to lay out right __________ at the corners of __________ boundaries. These "rope stretchers," as they were __________, knew that a triangle with __________ which are 3 units, 4 __________, and 5 units long is a __________ triangle. Such a triangle __________ a right angle opposite its __________ side. This same principle is __________ frequently used by carpenters and other craftsmen.

○
1. rope
2. liar
3. curse
4. lung
5. gill

○
1. problems
2. eighths
3. angles
4. numbers
5. checks

○
1. gusty
2. wary
3. shiny
4. sunny
5. land

○
1. fortified
2. evaporated
3. called
4. dismissed
5. beached

○
1. divisors
2. yardsticks
3. sides
4. powers
5. pints

○
1. units
2. gentlemen
3. refunds
4. sneers
5. falsehoods

○
1. shadowy
2. major
3. rotten
4. chatty
5. right

○
1. sips
2. stows
3. bowls
4. has
5. raises

○
1. furriest
2. foamiest
3. keenest
4. longest
5. kindest

○
1. stiffly
2. stoutly
3. utterly
4. harshly
5. still

When two lines intersect they __________ four angles. If any one of these __________ angles happens to be a __________ angle then we say that the __________ are *perpendicular*. Subsets of __________ lines can also be __________ . For example, two segments can be __________, a line and a __________ can be perpendicular, or a __________ and a line can be __________ .

○
1. suit
2. herd
3. wrap
4. enroll
5. form

○
1. inborn
2. silent
3. polar
4. erect
5. four

○
1. gaunt
2. stubby
3. clear
4. right
5. flinty

○
1. lines
2. factors
3. modes
4. means
5. meters

○
1. cylindrical
2. perpendicular
3. absent
4. equilateral
5. binary

○
1. complementary
2. perpendicular
3. collinear
4. diagonal
5. distributive

○
1. radical
2. rational
3. fractional
4. vertical
5. perpendicular

○
1. ray
2. net
3. curve
4. coin
5. total

○
1. nickel
2. reciprocal
3. calculation
4. segment
5. closure

○
1. quadratic
2. metric
3. congruent
4. perpendicular
5. maximum

**One of the concerns of geometry is __________ or describing shortest distances between __________ of points. In Euclidean __________ the shortest distance between __________ points lies along the __________ determined by the points.**

**The __________ segment joining two points of a __________ subset may not always __________ entirely within that subset. If the __________ situation cannot arise we __________ that the set is *convex*.**

○

1. finding
2. hiding
3. splitting
4. satisfying
5. poaching

○

1. pints
2. yards
3. axioms
4. pairs
5. dimes

○

1. combination
2. commission
3. geometry
4. addition
5. contribution

○

1. dull
2. meager
3. lavender
4. two
5. spare

○

1. line
2. coin
3. check
4. axiom
5. ratio

○

1. line
2. inverse
3. cylindrical
4. quadratic
5. cubed

○

1. buried
2. doomed
3. given
4. cooked
5. murdered

○

1. lie
2. riot
3. vote
4. shrink
5. cower

○

1. trembling
2. intoxicating
3. dancing
4. snowing
5. preceding

○

1. say
2. shriek
3. sob
4. clap
5. taste

**A simple polygon is a __________ closed polygonal path. A __________ is a polygon with __________ sides. A quadrilateral is a __________ polygon with four sides.**

**As the __________ of triangle and quadrilateral __________, polygons can be classified by the __________ of sides. For example, a __________ with five sides is a __________ . One with six sides is a __________, with eight sides an *octagon*, and with ten sides a *decagon*.**

○
1. **simple**
2. **squirmy**
3. **popular**
4. **violent**
5. **rugged**

○
1. **triangle**
2. **kilometer**
3. **volume**
4. **meter**
5. **closure**

○
1. **three**
2. **liberal**
3. **rugged**
4. **visible**
5. **sacred**

○
1. **choppy**
2. **unique**
3. **simple**
4. **blunt**
5. **smoky**

○
1. **challenges**
2. **cisterns**
3. **definitions**
4. **products**
5. **factories**

○
1. **view**
2. **exhibit**
3. **flounder**
4. **drift**
5. **comb**

○
1. **edge**
2. **number**
3. **counter**
4. **graph**
5. **degree**

○
1. **lattice**
2. **dividend**
3. **reciprocal**
4. **polygon**
5. **calculation**

○
1. *multiple*
2. *pentagon*
3. *double*
4. *variable*
5. *discount*

○
1. *function*
2. *problem*
3. *compass*
4. *hexagon*
5. *converse*

It is often necessary to ______________ with expressions of the ______________ $(a + b)^n$, where a and b are ______________ expressions of some ______________ and n is a ______________ positive integer. There exists a ______________ formula for expanding $(a + b)^n$, that is, for ______________ it as a ______________. Since a + b is a ______________, the theorem which gives us the ______________ is called the Binomial Theorem.

○
1. growl
2. cook
3. rejoice
4. dance
5. work

○
1. myth
2. sect
3. form
4. junk
5. cult

○
1. diagonal
2. mathematical
3. commercial
4. equiangular
5. perpendicular

○
1. type
2. color
3. mess
4. nude
5. star

○
1. cruel
2. casual
3. merry
4. lurid
5. large

○
1. gaseous
2. scaly
3. general
4. dejected
5. ruddy

○
1. paddling
2. expressing
3. adjourning
4. exercising
5. swindling

○
1. coin
2. ruler
3. side
4. sum
5. pint

○
1. computer
2. binomial
3. triangle
4. commission
5. reflection

○
1. compass
2. dollar
3. quadrant
4. rhombus
5. formula

Any spoke of a wheel can be ______________ of as generating an ______________ as the wheel rotates. ______________ from one side, the ______________ rotates counterclockwise, and the ______________ generated is said to be ______________. From the opposite side, the ______________ rotates clockwise, and the ______________ is said to be ______________.

In this chapter, you will ______________ some of the functions that can be defined for angles of rotation.

○
1. thought
2. gashed
3. derived
4. crocheted
5. saved

○
1. equality
2. amplitude
3. angle
4. identity
5. abacus

○
1. Culled
2. Viewed
3. Snubbed
4. Compressed
5. Walloped

○
1. emergency
2. host
3. payment
4. offer
5. wheel

○
1. account
2. kilometer
3. angle
4. computer
5. check

○
1. common
2. false
3. commercial
4. positive
5. commutative

○
1. stanza
2. stallion
3. wheel
4. lamb
5. judge

○
1. quart
2. angle
3. collection
4. mantissa
5. ruler

○
1. improper
2. mixed
3. binary
4. negative
5. distributive

○
1. study
2. attract
3. bolt
4. walk
5. deface

We shall use a table to ______________ logarithms of numbers. But before ______________ the table, let us ______________ the size of table that is ______________. Since there are infinitely ______________ numbers, any table can ______________ the common logarithms of ______________ a few of these ______________. Furthermore, it is ______________ that for the most ______________ a table can list only approximate values of logarithms, because most numbers have irrational logarithms represented by infinite decimals.

○
1. swing
2. celebrate
3. liberate
4. persecute
5. determine

○
1. blessing
2. galloping
3. roaring
4. discussing
5. obliterating

○
1. examine
2. alert
3. embarrass
4. pasteurize
5. picket

○
1. titanic
2. salty
3. dejected
4. commercial
5. necessary

○
1. serious
2. many
3. dead
4. sanitary
5. customary

○
1. renovate
2. like
3. hug
4. list
5. salute

○
1. securely
2. busily
3. timidly
4. lately
5. only

○
1. numbers
2. triangles
3. transversals
4. sequences
5. binomials

○
1. clear
2. miscellaneous
3. vacant
4. fragrant
5. underground

○
1. rice
2. part
3. wire
4. fare
5. marble

The weather stations in the larger __________ report daily both the __________ and low temperature readings. This __________ and local hourly temperature __________ are published in many __________ . In the winter, some of the __________ indicating reported temperature readings __________ "–" signs. Stock quotation __________, generally found in the __________ section of a newspaper, __________ consist of numerals containing "+" and "–" signs.

○
1. sighs
2. cities
3. shoves
4. balms
5. cowards

○
1. hooded
2. manual
3. evil
4. high
5. rental

○
1. information
2. whisk
3. welt
4. photographer
5. sweat

○
1. fittings
2. fillings
3. paintings
4. dwellings
5. readings

○
1. newspapers
2. headlights
3. italics
4. commands
5. retorts

○
1. trapezoids
2. vertices
3. numerals
4. pyramids
5. variables

○
1. reform
2. contain
3. partition
4. invade
5. weave

○
1. rewards
2. chances
3. changes
4. pulleys
5. impulses

○
1. satisfactory
2. financial
3. original
4. overnight
5. wretched

○
1. faintly
2. bravely
3. slyly
4. also
5. weakly

The path of a ball __________ in the air is __________ an arc of a __________ . So is the curve __________ by a stream of __________ from a garden hose or a __________ . A projectile fired from a __________ or a cannon moves in a __________ that is approximately a __________ . Many natural phenomena involve __________ expressions, especially if the force of gravity is involved.

○
1. saluted
2. ignited
3. inhaled
4. thrown
5. shown

○
1. impatiently
2. arrogantly
3. approximately
4. ferociously
5. radiantly

○
1. difference
2. diameter
3. centimeter
4. parabola
5. pentagon

○
1. followed
2. influenced
3. drained
4. knocked
5. donated

○
1. wire
2. garbage
3. jelly
4. water
5. bleach

○
1. wrinkle
2. decoration
3. fountain
4. wiggle
5. freshman

○
1. shout
2. qualification
3. kennel
4. precaution
5. mortar

○
1. quiver
2. path
3. nurse
4. destiny
5. morning

○
1. vertical
2. median
3. relation
4. parabola
5. numerator

○
1. quadratic
2. commercial
3. round
4. improper
5. metric

Line graphs are used to represent __________ much as we use __________ graphs and bar graphs. __________, we can draw a __________ graph quickly. Also, we can __________ pairs of facts more __________ with a line graph than with a __________ graph or a bar __________ .

The scale along the __________ of a line graph is __________ the horizontal scale. The scale up the side is the vertical scale.

○
1. flaps
2. huts
3. relations
4. thongs
5. drums

○
1. picture
2. salty
3. sentimental
4. various
5. quick

○
1. Moodily
2. Briskly
3. Generally
4. Wistfully
5. Violently

○
1. whole
2. mixed
3. cubed
4. line
5. total

○
1. salute
2. motion
3. renounce
4. dislocate
5. represent

○
1. privately
2. viciously
3. perpetually
4. urgently
5. accurately

○
1. raw
2. sticky
3. picture
4. prosperous
5. defective

○
1. alternate
2. square
3. closure
4. graph
5. agreement

○
1. bottom
2. suburb
3. quest
4. sidewalk
5. passport

○
1. kept
2. sent
3. called
4. bestowed
5. sold

When asked to *draw a geometric* __________, you are permitted to __________ a compass, a straightedge, a __________, a protractor, or any __________ suitable drawing instrument. When __________ to *construct a geometric* __________, you are permitted to __________ only a compass and a __________ . If you disregard all __________ markings on a ruler and __________ it only to draw lines or parts of a line, the ruler is considered to be a straightedge.

○
1. *dollar*
2. *pound*
3. *quart*
4. *power*
5. *figure*

○
1. recall
2. hail
3. use
4. spell
5. like

○
1. negative
2. variable
3. sphere
4. ruler
5. maximum

○
1. other
2. quiet
3. grumpy
4. armored
5. dauntless

○
1. plunged
2. whipped
3. burdened
4. consumed
5. asked

○
1. *gallon*
2. *check*
3. *nickel*
4. *tax*
5. *figure*

○
1. use
2. shape
3. topple
4. squash
5. buckle

○
1. straightedge
2. cube
3. sum
4. coefficient
5. converse

○
1. hoarse
2. rude
3. steadfast
4. unit
5. comic

○
1. use
2. blare
3. strain
4. bite
5. risk

The graph of $R \times R$ has many __________ names, but it is most __________ called the *Cartesian coordinate* __________, after the French mathematician-philosopher René Descartes. Descartes is __________ with being the first __________ to use two-dimensional __________ to study mathematics. The __________ may also be referred to as the Euclidean __________, since it can be __________ to study the properties of Euclidean __________ .

○
1. electric
2. different
3. horizontal
4. arrogant
5. deceased

○
1. quickly
2. bluntly
3. oddly
4. often
5. cruelly

○
1. *integer*
2. *plane*
3. *median*
4. *ruler*
5. *nickel*

○
1. overlaid
2. imprinted
3. pushed
4. credited
5. shoveled

○
1. lurch
2. person
3. caw
4. magnet
5. hemlock

○
1. equals
2. estimates
3. algorithms
4. coordinates
5. contributions

○
1. mean
2. value
3. input
4. mode
5. graph

○
1. quart
2. plane
3. proof
4. pint
5. length

○
1. coasted
2. torn
3. used
4. spited
5. mowed

○
1. profit
2. geometry
3. debt
4. money
5. commission

The following characteristics of inductive __________ should be recognized. The __________ the number of times you __________ a relationship, the greater the __________ that your conclusion about that __________ is correct. If a __________ to your conclusion is __________, then your conclusion is __________ and should be revised if __________ . A conclusion reached through __________ reasoning as described here is not mathematical proof that the conclusion is correct.

○
1. remarking
2. reasoning
3. scattering
4. viewing
5. training

○
1. crispier
2. kinder
3. larger
4. sleepier
5. slimmer

○
1. paint
2. observe
3. drip
4. pronounce
5. translate

○
1. siphon
2. overhead
3. likelihood
4. upset
5. sputter

○
1. gallery
2. pyramid
3. buffalo
4. accident
5. relationship

○
1. peppermint
2. brink
3. trial
4. counterexample
5. photostat

○
1. pierced
2. dissolved
3. tickled
4. married
5. found

○
1. wrong
2. latched
3. serene
4. visible
5. fatal

○
1. possible
2. violent
3. chilly
4. special
5. malicious

○
1. arable
2. stately
3. weekly
4. inductive
5. plentiful

The solution to a construction __________ may be expressed as a __________ of an equation. For __________, consider the problem of __________ of a cube. We must __________ the edge of a __________ whose volume is twice that of a __________ cube. We can take the __________ of the given cube as a __________ segment. The construction then __________ a problem of finding $x$ such that $x^3 = 2$.

○

1. shark
2. problem
3. remark
4. visit
5. parish

○

1. back
2. root
3. pledge
4. paw
5. ham

○

1. virtue
2. accord
3. example
4. crust
5. concern

○

1. inventory
2. prosperity
3. geology
4. duplication
5. boredom

○

1. gloss
2. smash
3. barge
4. find
5. hide

○

1. multiple
2. dime
3. cube
4. sum
5. zero

○

1. snubbed
2. given
3. sold
4. stolen
5. disgusted

○

1. puppet
2. site
3. edge
4. blubber
5. caper

○

1. unit
2. grumpy
3. veiled
4. fishy
5. civil

○

1. shocks
2. becomes
3. lunches
4. disguises
5. neglects

A *dihedral angle* is the __________ of two-planes with a __________ edge. The common edge is __________ the *edge* of the __________ angle. Each half-plane together with the __________ is called a *side* of the __________ angle. As you can __________, the edge of a __________ angle corresponds to the __________ of an angle, and the __________ of a dihedral angle correspond to the sides of an angle.

○
1. dignity
2. tire
3. gallon
4. union
5. mom

○
1. weekly
2. notable
3. common
4. pastel
5. tropical

○
1. dyed
2. chanted
3. blown
4. given
5. called

○
1. assigned
2. improper
3. reciprocal
4. inverse
5. dihedral

○
1. alley
2. polish
3. wharf
4. edge
5. queen

○
1. metric
2. dihedral
3. ordinal
4. rectangular
5. parallel

○
1. hit
2. see
3. sit
4. grow
5. paddle

○
1. dihedral
2. round
3. whole
4. combined
5. binary

○
1. interest
2. protractor
3. cone
4. circle
5. vertex

○
1. digits
2. nets
3. sides
4. totals
5. budgets

Any complex number is real (______________, negative, or zero) or ______________. For any given real ______________ equation we may determine the ______________ of zero roots by ______________, the numbers of possible ______________ roots and the ______________ of possible negative ______________ by Descartes' Rule of Signs, and the ______________ of possible imaginary roots by ______________ the numbers of possible real roots from the total number of roots.

○
1. reflexive
2. inscribed
3. scalene
4. positive
5. circular

○
1. soggy
2. miraculous
3. cheeky
4. imaginary
5. garish

○
1. coplanar
2. perpendicular
3. equilateral
4. commercial
5. polynomial

○
1. number
2. mantissa
3. corollary
4. quart
5. abacus

○
1. militia
2. egotism
3. observation
4. suspense
5. passion

○
1. positive
2. equiangular
3. inscribed
4. vertical
5. equidistant

○
1. coins
2. numbers
3. computers
4. spheres
5. radians

○
1. congruences
2. domains
3. exteriors
4. faces
5. roots

○
1. numbers
2. dollars
3. commericials
4. centroids
5. assumptions

○
1. subtracting
2. intercepting
3. constructing
4. taxing
5. transforming

When computing with the aid of ______________, the accuracy of the ______________ is limited to that of the ______________ of logarithms that is ______________. Furthermore, if the data are ______________ numbers, the accuracy of the ______________ can be no ______________ than that of the least ______________ factor. The result should be ______________ off to the same ______________ of significant digits as that of the factor with the smallest number.

○
1. conclusions
2. orthocenters
3. supplements
4. transversals
5. logarithms

○
1. cost
2. daisy
3. sultan
4. result
5. facility

○
1. boom
2. rock
3. office
4. minute
5. table

○
1. liberated
2. combed
3. restrained
4. halted
5. used

○
1. vertical
2. rectangular
3. equilateral
4. diagonal
5. approximate

○
1. globe
2. wall
3. result
4. truck
5. desire

○
1. thicker
2. smoother
3. quicker
4. greater
5. slimmer

○
1. accurate
2. equidistant
3. reflexive
4. parallel
5. concave

○
1. budgeted
2. postulated
3. tallied
4. curved
5. rounded

○
1. cost
2. factor
3. pyramid
4. edge
5. number

We classify an equation in ______________ of the replacements that ______________ the sentence true. If there are ______________ replacements for the variable that will ______________ the equation true, it is an ______________ equation. Consider the following ______________ of 2x - 3 = 6 as the ______________ set is changed. The ______________ 2x - 3 = 6 is ______________ if the replacement ______________ is the set of integers.

○
1. dashes
2. witnesses
3. terms
4. drawers
5. winks

○
1. plunk
2. jolt
3. make
4. tinkle
5. crochet

○
1. sly
2. kind
3. tan
4. no
5. cozy

○
1. make
2. pollute
3. drink
4. feint
5. plunge

○
1. alert
2. inconsistent
3. enviable
4. exorbitant
5. amateur

○
1. respiration
2. superstition
3. temptation
4. compulsion
5. classification

○
1. commercial
2. replacement
3. concentric
4. scalene
5. cubed

○
1. polygon
2. equation
3. computer
4. syllogism
5. induction

○
1. tattered
2. inconsistent
3. magical
4. flashy
5. cantankerous

○
1. leg
2. sine
3. inch
4. coin
5. set

We round off according to this __________: If the digit following the __________ retained digit is 4 or __________, we drop it. If the __________ following the last retained __________ is 5 or more, we __________ the last retained digit by 1. In __________ off a whole number, we __________ dropped digits with zeros. We do __________ replace dropped digits in __________ off a decimal fraction.

○

1. terminal
2. rule
3. accident
4. feast
5. sophomore

○

1. soggy
2. dark
3. last
4. merry
5. sticky

○

1. rusty
2. less
3. giddy
4. numb
5. husky

○

1. equal
2. proof
3. set
4. meter
5. digit

○

1. line
2. power
3. vertex
4. degree
5. digit

○

1. throw
2. increase
3. surprise
4. entangle
5. punch

○

1. spooning
2. rounding
3. moving
4. leading
5. punching

○

1. replace
2. intersect
3. earn
4. bisect
5. collect

○

1. quietly
2. thickly
3. not
4. merrily
5. wryly

○

1. hauling
2. slashing
3. rounding
4. pushing
5. shipping

We know that the ancient Babylonians, more than five __________ years ago, were already __________ with the base __________ as well as the __________ 60. Although they __________ how to find square __________, solve certain kinds of __________, and compute compound interest, their __________ was extremely crude and __________ . Not much more can be __________ for the algebra of the Greeks and Romans.

○

1. dismal
2. arctic
3. complex
4. thousand
5. deep

○

1. belittled
2. diminished
3. killed
4. acquainted
5. lubricated

○

1. high
2. dusty
3. coy
4. thick
5. ten

○

1. scalp
2. blade
3. yoke
4. base
5. diary

○

1. knew
2. quacked
3. chirped
4. barked
5. yelled

○

1. roots
2. gratitudes
3. events
4. masts
5. owls

○

1. equations
2. yardsticks
3. coins
4. nickels
5. protractors

○

1. gallon
2. midpoint
3. algebra
4. coordinate
5. exponent

○

1. limited
2. famished
3. pickled
4. burned
5. roasted

○

1. worn
2. dropped
3. tamed
4. pawned
5. said

Modern technology has found uses for __________ curves. The cables of a __________ bridge form a parabolic __________ . In building stone bridges and __________ structural arches, the parabolic __________ is sometimes used.

The __________ headlight illustrates the use of the __________ reflector. The rays of __________ which radiate in all __________ from the focal point are __________ in such a way that they emerge parallel.

○
1. false
2. wretched
3. parabolic
4. numb
5. approximate

○
1. petty
2. dire
3. suspension
4. ferocious
5. crimson

○
1. bag
2. curve
3. guard
4. cue
5. meadow

○
1. other
2. soft
3. handy
4. consistent
5. legible

○
1. beat
2. pheasant
3. marsh
4. form
5. medal

○
1. automobile
2. perishable
3. painful
4. useless
5. overdue

○
1. triple
2. fleshy
3. frigid
4. melancholy
5. parabolic

○
1. sarcasm
2. charm
3. light
4. melody
5. venom

○
1. directions
2. ministers
3. scores
4. presents
5. spears

○
1. reflected
2. besieged
3. confirmed
4. braced
5. whisked

We defined an angle to be the __________ of two non-collinear rays which __________ a common endpoint. Thus, because the __________ of two sides of a __________ is the union of __________ segments rather than two __________, it is not an __________ . However, it is convenient to __________ of the angles determined by a __________ . These would be the __________ formed by the rays of which the sides are subsets.

○
1. clock
2. union
3. earth
4. parrot
5. assurance

○
1. open
2. prohibit
3. nourish
4. have
5. leak

○
1. suburb
2. union
3. cistern
4. pole
5. evil

○
1. dividend
2. budget
3. length
4. numeration
5. triangle

○
1. two
2. tense
3. aerial
4. eager
5. bald

○
1. drops
2. almanacs
3. ports
4. rays
5. ostriches

○
1. angle
2. interest
3. axis
4. absolute
5. axiom

○
1. complain
2. eat
3. think
4. smell
5. quack

○
1. power
2. mean
3. negative
4. ratio
5. triangle

○
1. volumes
2. angles
3. zeros
4. checks
5. budgets

Topology is a very general __________ of geometry. Establishment of Euler's Formula is a __________ problem. Two figures are __________ equivalent if one can be __________ to coincide with the other by __________, shrinking, stretching, or bending, but __________ by cutting or tearing. A __________ and a doughnut are __________ equivalent. The hole in the __________ becomes the inside of the __________ of the teacup.

○

1. wave
2. fog
3. resident
4. type
5. trial

○

1. fractional
2. vertical
3. topological
4. commutative
5. radical

○

1. racially
2. wistfully
3. reluctantly
4. topologically
5. radiantly

○

1. spun
2. made
3. anchored
4. fought
5. relieved

○

1. fleece
2. inquiry
3. glamour
4. distortion
5. lemonade

○

1. intimately
2. not
3. coldly
4. wryly
5. dryly

○

1. teacup
2. curfew
3. moan
4. violin
5. holiday

○

1. ingeniously
2. frantically
3. topologically
4. harshly
5. orally

○

1. doughnut
2. punch
3. province
4. booth
5. plot

○

1. limp
2. sultan
3. tariff
4. handle
5. forecast

You know that direct and __________ proofs can be written in __________ style and in two-column __________ . Variations in the style of two column __________ proofs are also possible. These __________ usually center around the __________ in which the logic of the __________ is treated. Either the __________ remains unwritten, or the __________ appears explicitly in writing. In either __________, logic is used.

○
1. fresh
2. bleak
3. ashamed
4. indirect
5. arctic

○
1. medieval
2. paragraph
3. alcoholic
4. dangerous
5. husky

○
1. style
2. fame
3. protection
4. hope
5. salt

○
1. primitive
2. rare
3. squeamish
4. direct
5. outer

○
1. earnings
2. variations
3. endpoints
4. percents
5. supersets

○
1. manner
2. explorer
3. ratio
4. woman
5. dynamite

○
1. proof
2. herd
3. birthday
4. polish
5. coward

○
1. logic
2. cocoa
3. continent
4. scream
5. cotton

○
1. soldier
2. knight
3. uncle
4. logic
5. legislature

○
1. undertone
2. llama
3. case
4. canal
5. traitor

We have previously specified points in a ______________ in terms of rectangular ______________, using the ordered ______________ (a, b) to ______________ the point whose directed ______________ from the x- and y-axes are a and b, ______________. Another important method for ______________ points is by means of ______________ coordinates. In this case we ______________ use ordered pairs; however, one of the ______________ represents the measure of an angle.

○
1. plane
2. dollar
3. cosine
4. profit
5. pound

○
1. centimeters
2. cylinders
3. coordinates
4. operations
5. commissions

○
1. dime
2. chord
3. profit
4. pair
5. unit

○
1. curve
2. count
3. tally
4. borrow
5. denote

○
1. cofactors
2. trapezoids
3. corollaries
4. centroids
5. distances

○
1. respectively
2. suspiciously
3. obstinately
4. unanimously
5. hilariously

○
1. representing
2. celebrating
3. discouraging
4. exasperating
5. humiliating

○
1. stupid
2. polar
3. fickle
4. serene
5. jovial

○
1. again
2. safely
3. daintily
4. orally
5. honestly

○
1. sellers
2. numbers
3. spheres
4. dollars
5. vertices

It is often desirable or necessary to ______________ succeeding terms of a ______________ when we have been ______________ the first several terms. ______________ terms of a sequence can be ______________ only if the generator is ______________ or some assumption is ______________ which allows us to ______________ a generator. If an ______________ is necessary, we shall ______________ what appears to be the simplest generator indicated by the pattern of the terms of the sequence.

○
1. inscribe
2. tax
3. determine
4. curve
5. borrow

○
1. cosine
2. hyperbola
3. polyhedron
4. compass
5. sequence

○
1. blown
2. massaged
3. clasped
4. raised
5. given

○
1. Scintillating
2. Flagrant
3. Sumptuous
4. Succeeding
5. Fruity

○
1. pressured
2. written
3. submerged
4. mimicked
5. driven

○
1. blown
2. strewn
3. grown
4. known
5. flown

○
1. jolted
2. hooked
3. cursed
4. stamped
5. made

○
1. bisect
2. truncate
3. integrate
4. inscribe
5. determine

○
1. enemy
2. assumption
3. audition
4. aperture
5. onion

○
1. haunt
2. barbeque
3. choose
4. demolish
5. plunk

Parabolas are very useful in applications of _____________ to the physical _____________. For example, it can be _____________ that if a projectile is _____________ and it is assumed that it is _____________ upon only by the _____________ of gravity (that is, _____________ resistance and other outside _____________ are ignored), then the _____________ of the projectile is _____________. Properties of parabolas are used in the design of mirrors for telescopes and searchlights. These are only a few of many physical applications.

○
1. sellers
2. vertices
3. denominators
4. coins
5. mathematics

○
1. dream
2. flute
3. world
4. office
5. burrow

○
1. revived
2. hoarded
3. shown
4. pledged
5. graded

○
1. tarnished
2. abated
3. dismayed
4. barred
5. fired

○
1. smiled
2. rained
3. laid
4. crawled
5. acted

○
1. nose
2. force
3. cloak
4. job
5. yell

○
1. weekly
2. amber
3. air
4. capital
5. coy

○
1. bridges
2. years
3. aces
4. factors
5. compliments

○
1. razor
2. staff
3. path
4. perch
5. pond

○
1. exterior
2. parabolic
3. interior
4. commutative
5. obtuse

**The precision of a measurement is determined by the __________ of measurement used. The __________ the unit, the greater is the __________ of the measurement.**

**Even with __________ precise measuring instruments, there is an __________ *of measurement*. The error of __________ is the difference between the __________ length (weight, speed) and the __________ length (weight, speed). Notice that the __________ *error of measurement* does __________ refer to a mistake made in measuring.**

○
1. **unit**
2. **probe**
3. **fraud**
4. **veteran**
5. **shore**

○
1. **rockier**
2. **gayer**
3. **livelier**
4. **smaller**
5. **richer**

○
1. **happiness**
2. **precision**
3. **curse**
4. **spaniel**
5. **suicide**

○
1. **wearily**
2. **actively**
3. **very**
4. **painfully**
5. **orally**

○
1. *oar*
2. *autumn*
3. *inspiration*
4. *obligation*
5. *error*

○
1. **symmetry**
2. **collection**
3. **measurement**
4. **distance**
5. **inequality**

○
1. **hollow**
2. **noisy**
3. **swampy**
4. **actual**
5. **dim**

○
1. **measured**
2. **carried**
3. **budgeted**
4. **reversed**
5. **divided**

○
1. **forgery**
2. **buggy**
3. **term**
4. **typhoon**
5. **crest**

○
1. *regally*
2. *not*
3. *loyally*
4. *reluctantly*
5. *sadly*

The Hindu-Arabic system of numeration, our __________ system, is one of __________ great inventions. We express __________ in this system using the __________ simple symbols (digits).

In Hindu-Arabic __________, the position of a __________ in a numeral is __________ . Through such position, the __________ of a group is __________ . For example, "333" expresses 3 __________ of one hundred, 3 groups of ten, and 3 groups of one.

○
1. diagonal
2. positive
3. decimal
4. false
5. vertical

○
1. pollen's
2. comedy's
3. fury's
4. sculpture's
5. man's

○
1. numbers
2. axes
3. shapes
4. ratios
5. multiples

○
1. pathetic
2. silent
3. meek
4. ten
5. ripe

○
1. notation
2. money
3. commission
4. accuracy
5. probability

○
1. yard
2. counter
3. radical
4. digit
5. check

○
1. enthusiastic
2. financial
3. regrettable
4. abundant
5. important

○
1. bunch
2. python
3. size
4. ballad
5. master

○
1. stolen
2. forgotten
3. sped
4. shown
5. repaired

○
1. geysers
2. chills
3. guitars
4. crumbs
5. groups

10-24-01-05-05 **M 24–3**

Geometry has existed as a __________ body of knowledge for over two __________ years. Much of the __________ is organized in almost the __________ manner today as it was in the __________ of the ancient Greeks. The __________ of the Greeks was __________ without the use of __________, for the Greeks had no __________ developed algebra as we __________ today.

○
1. flashy
2. formal
3. racial
4. malicious
5. quizzical

○
1. tense
2. watery
3. thousand
4. insolent
5. loose

○
1. curtain
2. twitch
3. discipline
4. afternoon
5. opportunity

○
1. vile
2. tragic
3. hoofed
4. same
5. cubic

○
1. curio
2. oven
3. float
4. chunk
5. time

○
1. circumference
2. account
3. geometry
4. lattice
5. division

○
1. developed
2. parched
3. chanted
4. invaded
5. corroded

○
1. algebra
2. inequality
3. closure
4. money
5. profit

○
1. gaily
2. tenderly
3. musically
4. highly
5. orally

○
1. kill
2. have
3. comb
4. drain
5. smudge

Size transformations have many counterparts in the __________ world. When a __________ is first designed, a __________ model is built. The __________ product resembles the model in __________ all respects except size. __________ are often blown up to a __________ size to make details __________ to examine. Photographs are __________ frequently reduced in size, as on __________ .

○
1. physical
2. arable
3. special
4. abundant
5. mute

○
1. car
2. peer
3. priest
4. bun
5. beak

○
1. devout
2. scheming
3. scale
4. brave
5. kind

○
1. bruised
2. guaranteed
3. despised
4. finished
5. scuffled

○
1. almost
2. devoutly
3. brutally
4. lowly
5. solidly

○
1. Alligators
2. Occasions
3. Counterfeits
4. Griddles
5. Photographs

○
1. poorer
2. cruder
3. tighter
4. primmer
5. larger

○
1. saner
2. easier
3. tenser
4. shorter
5. gentler

○
1. also
2. aloud
3. slowly
4. newly
5. simply

○
1. reform
2. abolition
3. navigation
4. microfilm
5. espionage

The common logarithm of a number is the ______________ of (1) an integer, ______________ the characteristic, and (2) a ______________ number less than 1, ______________ the mantissa, which is ______________ in a table of ______________. In practice you obtain the ______________ by inspection (using ______________ if you like) without ______________ putting the number in ______________ notation. In working with logarithms we usually wish to keep the "fractional part" positive, so we do not simplify -3 + 0.3365 to -2.6635.

○
1. vertex
2. sum
3. section
4. geometry
5. width

○
1. sailed
2. talked
3. manufactured
4. persecuted
5. called

○
1. perpendicular
2. conic
3. distributive
4. parallel
5. nonnegative

○
1. called
2. alerted
3. embarrassed
4. trailed
5. snuggled

○
1. surrendered
2. excelled
3. found
4. vulcanized
5. fondled

○
1. logarithms
2. sets
3. geometries
4. lattices
5. portions

○
1. protractor
2. construction
3. orthocenter
4. characteristic
5. parabola

○
1. souvenirs
2. superstitions
3. estates
4. serpents
5. carets

○
1. universally
2. evasively
3. demurely
4. actually
5. violently

○
1. coherent
2. fastidious
3. standard
4. kinetic
5. malicious

Measurements always produce approximations. A measurement is made by ______________ some quantity with a ______________ device which has a ______________ scale. The measurement may be ______________ as a number of the ______________ units on the scale. For ______________, if a ruler ______________ 16ths of an inch ______________ on it, a length ______________ by it may be ______________ as a number of 16ths of an inch.

○
1. comparing
2. cheering
3. burying
4. surprising
5. irritating

○
1. truncating
2. postulating
3. carrying
4. measuring
5. conjugating

○
1. scalene
2. perpendicular
3. numerical
4. reflexive
5. concentric

○
1. read
2. farmed
3. curdled
4. dyed
5. laid

○
1. hottest
2. newest
3. dumbest
4. smallest
5. stiffest

○
1. ornament
2. example
3. attitude
4. charcoal
5. flounder

○
1. has
2. wades
3. exalts
4. crosses
5. predicts

○
1. rained
2. drafted
3. strapped
4. marked
5. indicted

○
1. connected
2. measured
3. repealed
4. seceded
5. transferred

○
1. ostracized
2. drilled
3. bruised
4. amputated
5. reported

The multiplication and division necessary to _______________ triangles can be done by _______________. The logarithms of the _______________ functions are given in the _______________ on pages 550-554 for every 10' of _______________. Interpolate for other _______________.

Many trigonometric functions have _______________ smaller than one. Thus, their _______________ have negative characteristics. To _______________ matters, the negative _______________ is not included in the table. However, each value in the table is assumed to have -10 added to it.

○
1. borrow
2. curve
3. collect
4. solve
5. abbreviate

○
1. prisms
2. compasses
3. spheres
4. edges
5. logarithms

○
1. commercial
2. concave
3. trigonometric
4. parallel
5. equilateral

○
1. spring
2. dormitory
3. illusion
4. permit
5. table

○
1. logic
2. identity
3. focus
4. angle
5. coin

○
1. faces
2. vectors
3. cubes
4. values
5. depths

○
1. centers
2. values
3. quarts
4. abacuses
5. sellers

○
1. logarithms
2. commissions
3. pentagons
4. discounts
5. origins

○
1. embalm
2. slither
3. endanger
4. droop
5. simplify

○
1. triangle
2. characteristic
3. circumference
4. syllogism
5. dollar

12 24 01 05 09 M 24-8

The set of natural numbers is closed under ______________ and multiplication. The set of ______________ numbers is not closed under ______________ or under division; that is, ______________ and quotients of natural ______________ may or may not ______________ natural numbers. In order to ______________ a system which includes the ______________ of natural numbers and is ______________ under subtraction, we need the ______________ of integers.

○
1. commission
2. logic
3. addition
4. correspondence
5. diameter

○
1. fragrant
2. devout
3. natural
4. bloody
5. ribald

○
1. intersection
2. trigonometry
3. transformation
4. similarity
5. subtraction

○
1. triangles
2. circumferences
3. computers
4. differences
5. conclusions

○
1. nickles
2. numbers
3. rulers
4. origins
5. rhombuses

○
1. prosecute
2. represent
3. embellish
4. interview
5. vanquish

○
1. cuddle
2. forgive
3. ravage
4. obtain
5. rustle

○
1. secant
2. sphere
3. set
4. edge
5. coin

○
1. closed
2. revived
3. charted
4. repealed
5. shuffled

○
1. arc
2. sine
3. set
4. face
5. ray

Every parabola is symmetric with respect to some ______________. This line is called the ______________ of symmetry. The axis of ______________ intersects the parabola in a ______________ point called the turning ______________, or vertex, of the ______________. The vertex is its ______________ mirror image with respect to the ______________ of symmetry. The vertex is the ______________, or minimum point of the ______________ if the parabola opens upward; it is the highest, or maximum, point if the parabola opens downward.

○
1. profit
2. depth
3. line
4. dime
5. derivative

○
1. rank
2. approximation
3. combination
4. axis
5. diagonal

○
1. divisibility
2. symmetry
3. equality
4. geometry
5. perpendicularity

○
1. serious
2. watchful
3. funny
4. terse
5. single

○
1. inch
2. dollar
3. point
4. union
5. remainder

○
1. numeration
2. parabola
3. pyramid
4. tax
5. exponent

○
1. rigid
2. tepid
3. tan
4. own
5. ebony

○
1. abacus
2. numerator
3. digit
4. trapezoid
5. axis

○
1. swiftest
2. boldest
3. roughest
4. palest
5. lowest

○
1. parabola
2. decagon
3. abscissa
4. contrapositive
5. binomial

11 25 01 05 06 **M 25-2**

In general, a solution of an ______________ sentence in three ______________ is an ordered ______________ of values of the ______________ such that when the ______________ in the sentence are ______________ with the names of these ______________, the resulting statement is ______________. Such an ordered triple of ______________ is said to satisfy the ______________.

○
1. open
2. eminent
3. occult
4. avid
5. angry

○
1. polyhedrons
2. apothems
3. variables
4. semicircles
5. diagonals

○
1. compass
2. triple
3. sphere
4. edge
5. inch

○
1. transversals
2. computers
3. nickles
4. variables
5. protractors

○
1. pennies
2. commissions
3. variables
4. columns
5. polygons

○
1. delighted
2. tarnished
3. squirted
4. replaced
5. discomforted

○
1. values
2. coins
3. taxes
4. pounds
5. ranks

○
1. true
2. sacred
3. stocky
4. frugal
5. dirty

○
1. yards
2. collections
3. numbers
4. sellers
5. accounts

○
1. sentence
2. lumberjack
3. daydream
4. freckle
5. snowman

If the directions of two ______________ are neither the same nor ______________, their resultant is always one ______________ of a triangle whose other ______________ sides are the ______________ themselves. The vectors are ______________ of their resultant. If they are at ______________ angles to each other, they are ______________ referred to as vertical and ______________ components.

If the components and the ______________ form an oblique triangle, the problem may be solved using the law of sines or the law of cosines.

○
1. contrapositives
2. postulates
3. vectors
4. units
5. remainders

○
1. concentric
2. interior
3. congruent
4. opposite
5. decimal

○
1. cone
2. radian
3. binomial
4. computer
5. side

○
1. experimental
2. sacred
3. wary
4. two
5. new

○
1. vectors
2. cubes
3. numerators
4. rulers
5. coins

○
1. dollars
2. components
3. triangles
4. costs
5. squares

○
1. ordinal
2. mixed
3. right
4. convex
5. cubed

○
1. nightly
2. fiercely
3. soberly
4. damply
5. frequently

○
1. horizontal
2. concave
3. inscribed
4. scalene
5. decimal

○
1. pledge
2. variety
3. resultant
4. caption
5. shilling

Two equations are said to be ______________ if they have the ______________ solution set. For example, the ______________ x - 1 = 2 and x = 3 are ______________ equations. One method used to ______________ an equation is to ______________ the given equation by a ______________ of equivalent equations, each ______________ in some sense simpler than the ______________ one and terminating in an ______________ for which the solution set is obvious.

○
1. diagonal
2. binary
3. absent
4. even
5. equivalent

○
1. same
2. flexible
3. polar
4. astute
5. vocal

○
1. equations
2. dollars
3. abacuses
4. rulers
5. pyramids

○
1. round
2. commercial
3. equivalent
4. fewer
5. distributive

○
1. tally
2. earn
3. curve
4. tax
5. solve

○
1. carry
2. borrow
3. replace
4. collect
5. count

○
1. chain
2. basket
3. closet
4. cupcake
5. vandal

○
1. one
2. ski
3. nod
4. cow
5. kit

○
1. galvanized
2. brewing
3. toasty
4. pneumatic
5. preceding

○
1. inch
2. exterior
3. asymptote
4. image
5. equation

All of us are aware of ______________ opinion polls, described in the ______________, in which a small ______________ of the population is ______________ on some issue and the ______________ found in the ______________ are predicted to be about the same as if the ______________ population had been asked the ______________ question. In such surveys there is a ______________ element in selecting the ______________ to question, and it is at this point that probability arises.

○
1. public
2. watery
3. gaseous
4. barefoot
5. soapy

○
1. rubbers
2. newspapers
3. lapels
4. missiles
5. bounces

○
1. bug
2. tier
3. virtue
4. sample
5. ramp

○
1. questioned
2. declared
3. worked
4. jumped
5. fastened

○
1. suspenders
2. views
3. muscles
4. escorts
5. troops

○
1. sample
2. suit
3. flame
4. saint
5. globe

○
1. brisk
2. rotten
3. tedious
4. whole
5. short

○
1. confident
2. timid
3. frozen
4. same
5. fruity

○
1. lavender
2. random
3. brusque
4. crusty
5. financial

○
1. cruises
2. persons
3. gnats
4. tires
5. tyrants

We now turn our attention to that ______________ of mathematics that is ______________ called analytic geometry. Plane ______________ geometry relates algebra and ______________ geometry. This relation is made ______________ by the coordinatization of ______________ and planes. By ______________ a one-to-one correspondence between the ______________ of points of the ______________ and the set of ______________ pairs of real numbers we can study the properties of geometric figures by algebraic methods.

○
1. psychiatrist
2. part
3. serpent
4. diet
5. mountainside

○
1. commonly
2. savagely
3. maternally
4. thirstily
5. naively

○
1. piteous
2. profane
3. despicable
4. analytic
5. cadaverous

○
1. commercial
2. negative
3. plane
4. cubed
5. absent

○
1. possible
2. gorgeous
3. amphibious
4. unhappy
5. electric

○
1. postulates
2. coins
3. taxes
4. lines
5. abacuses

○
1. jailing
2. establishing
3. disengaging
4. loitering
5. repealing

○
1. set
2. root
3. vector
4. binomial
5. ray

○
1. cosine
2. plane
3. parabola
4. sine
5. rhombus

○
1. ordered
2. rippled
3. braided
4. nicked
5. jilted

A rectangular solid is 10 cm __________, 8 cm wide, and 6 cm __________ . On plain paper, __________ a rectangular face of this __________ solid which is 10 cm by 6 cm. __________ the length of its __________ . Use this diagonal to __________ another rectangle from which you can __________ the length of a __________ diagonal of the rectangular __________ .

○
1. regal
2. shabby
3. long
4. affectionate
5. malicious

○
1. abnormal
2. original
3. creaky
4. evil
5. high

○
1. construct
2. double
3. budget
4. reduce
5. subtract

○
1. decimal
2. radical
3. rectangular
4. finite
5. whole

○
1. Tax
2. Measure
3. Collect
4. Borrow
5. Replace

○
1. decrease
2. diagonal
3. exponent
4. ratio
5. number

○
1. decrease
2. construct
3. continue
4. total
5. multiply

○
1. obtain
2. diaper
3. reform
4. blame
5. crunch

○
1. sticky
2. brittle
3. blind
4. space
5. weary

○
1. detail
2. goat
3. struggle
4. solid
5. juror

In order to describe the position of any __________ on a solid object we __________ three axes, each of which is __________ to the other two. Without such a __________ of axes, it would be __________ impossible to build a __________ three-dimensional model of the DNA-RNA __________, a proper understanding of whose __________ and structure is vital to our __________ of the living processes in __________ .

○
1. integer
2. point
3. degree
4. pound
5. equal

○
1. acclaim
2. await
3. bet
4. need
5. vow

○
1. commercial
2. accurate
3. absent
4. improper
5. perpendicular

○
1. skill
2. system
3. blemish
4. dock
5. hoist

○
1. numbly
2. sweetly
3. quite
4. coldly
5. vaguely

○
1. satisfactory
2. belligerent
3. jubilant
4. mysterious
5. temporary

○
1. molecule
2. tornado
3. bladder
4. kidney
5. geyser

○
1. shoulder
2. composition
3. instruction
4. expedition
5. griddle

○
1. challenge
2. bough
3. consequence
4. secretary
5. knowledge

○
1. chemists
2. filings
3. cells
4. flasks
5. yolks

11 26 01 05 03 **M 26-3**

When you express a rational number as a ______________ of integers, you usually ______________ the fraction to lowest ______________; for example, you ______________ 27/36 as 3/4. When you have ______________ this, the integers in the ______________ and denominator have 1 as their ______________ common factor, and you ______________ them relatively prime. For ______________, 8 and 15 are ______________ prime integers, but 12 and 15 are not.

○
1. protractor
2. quotient
3. centimeter
4. circumference
5. commission

○
1. reduce
2. tax
3. curve
4. hypothesize
5. permute

○
1. bases
2. sectors
3. planes
4. legs
5. terms

○
1. write
2. interrogate
3. salute
4. surprise
5. migrate

○
1. feared
2. done
3. won
4. papered
5. folded

○
1. hyperbola
2. reflection
3. numerator
4. region
5. cosine

○
1. fastest
2. smoothest
3. happiest
4. rawest
5. greatest

○
1. steer
2. submerge
3. crank
4. strap
5. call

○
1. suspense
2. diagnosis
3. example
4. slime
5. water

○
1. alertly
2. slyly
3. warmly
4. relatively
5. profusely

To factor a polynomial you ______________ it as a ______________ of other polynomials belonging to a ______________ factor set. Unless otherwise ______________, the factor set for a ______________ having integral coefficients will be the ______________ of all polynomials with ______________ coefficients.

Some polynomials have a ______________ factor other than 1 and -1. We ______________ 2a the greatest monomial ______________ of 4ax - 6ay because it is the greatest common factor of the terms of the polynomial.

○
1. wilt
2. heave
3. crochet
4. stun
5. express

○
1. product
2. prism
3. rhombus
4. diagonal
5. length

○
1. bloody
2. profuse
3. sandy
4. nasal
5. given

○
1. overcome
2. indicated
3. invited
4. repelled
5. provoked

○
1. tangent
2. matrix
3. prism
4. polynomial
5. point

○
1. angle
2. set
3. centroid
4. decagon
5. face

○
1. parallel
2. integral
3. lateral
4. obtuse
5. concentric

○
1. concave
2. conic
3. skew
4. monomial
5. convex

○
1. combine
2. time
3. call
4. slay
5. squirt

○
1. factor
2. angle
3. origin
4. domain
5. cotangent

The definition of equivalent sets ______________ first that the two ______________ have the same number of ______________: otherwise there can be ______________ one-to-one correspondence. Furthermore, the ______________ for pairing the elements in the ______________ requires pairing the correct ______________ or product, provided sums and ______________ are defined in the ______________. We shall illustrate the ______________ with two groups discussed in a previous Mathematical Excursion.

○
1. requires
2. startles
3. slumbers
4. publishes
5. gulps

○
1. nets
2. pennies
3. origins
4. sets
5. sines

○
1. edges
2. elements
3. commissions
4. reasonings
5. lengths

○
1. lewd
2. soggy
3. spry
4. dim
5. no

○
1. snub
2. wink
3. silk
4. rule
5. sale

○
1. correspondence
2. astronomer
3. massacre
4. underground
5. blacksmith

○
1. inch
2. coin
3. sum
4. axis
5. vertex

○
1. computers
2. inductions
3. syllogisms
4. products
5. centimeters

○
1. quarts
2. pennies
3. chords
4. systems
5. abacuses

○
1. clump
2. eye
3. train
4. juror
5. idea

We need to establish a ______________ basis for a ______________ between the scalar ______________ on the x-axis and those on the y-axis. Each ______________ on the y-axis stands for a ______________ measure of one unit, the ______________ of the unit circle. In ______________ to obtain a corresponding ______________ on the x-axis we ______________ that 360° corresponds to 2π ______________ and that 2π is then the measure of the circumference in linear units equal to the radius.

○
1. solemn
2. reasonable
3. miserable
4. crusty
5. crimson

○
1. comparison
2. script
3. telegraph
4. rooster
5. nugget

○
1. faces
2. centroids
3. units
4. pyramids
5. edges

○
1. arc
2. binomial
3. abacus
4. unit
5. dollar

○
1. perpendicular
2. concentric
3. linear
4. scalene
5. concave

○
1. radius
2. logic
3. money
4. tally
5. ruler

○
1. sleep
2. film
3. stone
4. order
5. dance

○
1. defeat
2. scale
3. farce
4. rascal
5. pan

○
1. glacier
2. squeal
3. note
4. shudder
5. chant

○
1. polygons
2. decagons
3. dollars
4. radians
5. sellers

We have started with a geometric object, namely euclidean ______________, and have given it ______________. But often, in the ______________ of mathematics to ______________ of physics, chemistry, engineering and ______________ fields it is the ______________ situation that prevails. We are ______________ ordered triples of real ______________ and use space to ______________ graphically the relations between the ______________ triples. In some cases there is no need to choose the same unit for all the coordinate axes.

○
1. coin
2. computer
3. inequality
4. space
5. centimeter

○
1. coordinates
2. breads
3. elbows
4. gliders
5. umbrellas

○
1. orchards
2. pastors
3. planks
4. thermometers
5. applications

○
1. husbands
2. hillsides
3. problems
4. bicycles
5. hooks

○
1. hopeful
2. flagrant
3. weary
4. nasal
5. other

○
1. exterior
2. consistent
3. equiangular
4. converse
5. equidistant

○
1. surrendered
2. given
3. hailed
4. whispered
5. braided

○
1. closures
2. polygons
3. converses
4. asymtotes
5. numbers

○
1. chip
2. impoverish
3. illustrate
4. wander
5. coach

○
1. frivolous
2. stifled
3. shadowy
4. scenic
5. ordered

The problem of finding the ______________ probability P(A) of any ______________ A is basically a ______________ of identifying an appropriate ______________ space S of equally ______________ outcomes such that all ______________ outcomes are included in S and A is a ______________ of S. Then n(A) and n(S) must be ______________. Frequently some agreement must be ______________ *a priori* (in advance) on what ______________ a particular sample space.

○
1. circular
2. exterior
3. perpendicular
4. equilateral
5. mathematical

○
1. screech
2. gnat
3. saucer
4. event
5. quart

○
1. binomial
2. problem
3. quadrant
4. transversal
5. decagon

○
1. devious
2. cruel
3. tragic
4. sample
5. grumpy

○
1. municipal
2. likely
3. rickety
4. torrid
5. ghastly

○
1. religious
2. crunchy
3. possible
4. genteel
5. floral

○
1. triangle
2. subset
3. radian
4. tangent
5. polyhedron

○
1. jerked
2. sunk
3. jilted
4. found
5. frisked

○
1. outsmarted
2. praised
3. reached
4. melted
5. electrocuted

○
1. delights
2. dislocates
3. constitutes
4. disguises
5. misleads

Suppose that an experiment is ______________ n times and that ______________ is taken to make ______________ that the same conditions ______________ each time. This ______________ us a set of n ______________ trials of an ______________, or an independent trials ______________. Examples of independent trials ______________ are coin tossing, dice ______________, and repeated drawing of balls with replacement. Because of the independence property, the probability space of such a process can be built sequentially.

○
1. walloped
2. muffled
3. disgorged
4. splashed
5. performed

○
1. shame
2. care
3. chivalry
4. botany
5. feed

○
1. toasty
2. edible
3. weary
4. certain
5. strange

○
1. advocate
2. scream
3. roam
4. buckle
5. apply

○
1. embalms
2. lassos
3. vulcanizes
4. hatches
5. gives

○
1. mystical
2. vindictive
3. tropical
4. bilingual
5. independent

○
1. abdomen
2. ace
3. embrace
4. experiment
5. umbrella

○
1. hemlock
2. belfry
3. artery
4. blouse
5. process

○
1. blossoms
2. violins
3. herrings
4. processes
5. brokers

○
1. polluting
2. throwing
3. demoralizing
4. healing
5. shrinking

The six "trigonometric" functions over the real ______________ are sometimes called the ______________ functions, to distinguish them from the ______________ functions for angles. However, to ______________ the value of a ______________ function for any given ______________ number, you can ______________ the real number to be the ______________ measure of an angle and then ______________ the corresponding trigonometric ______________ for that angle.

○
1. characteristics
2. orthocenters
3. apothems
4. numbers
5. parallelepipeds

○
1. novel
2. acrid
3. circular
4. thermal
5. passive

○
1. rectangular
2. trigonometric
3. equilateral
4. concentric
5. equiangular

○
1. tinkle
2. startle
3. whittle
4. find
5. scald

○
1. circular
2. reflexive
3. diagonal
4. projected
5. truncated

○
1. net
2. real
3. skew
4. conic
5. absent

○
1. curdle
2. swell
3. consider
4. defrost
5. pamper

○
1. radian
2. absent
3. commercial
4. mixed
5. scalene

○
1. shrivel
2. hatch
3. bless
4. evaluate
5. bewilder

○
1. ellipse
2. face
3. function
4. postulate
5. quadrant

We often speak of things being related, so the ______________ relation is used frequently in ______________ language. People traveling up a ______________ usually notice that there is a ______________ between temperature and altitude.

The ______________ use of the word ______________ is similar to its ______________ use. But in mathematics, we ______________ relation precisely and quite ______________. We will do so in this ______________. Then you will study relations, mainly a special type of relation called a function.

○
1. word
2. spider
3. vegetable
4. vulture
5. cult

○
1. soggy
2. everyday
3. handsome
4. beige
5. nutritious

○
1. mountain
2. daisy
3. cupcake
4. barnyard
5. blister

○
1. chimpanzee
2. relation
3. submarine
4. roaster
5. deputy

○
1. scalene
2. vertical
3. mathematical
4. absent
5. perpendicular

○
1. relation
2. sneak
3. orphan
4. knuckle
5. cockroach

○
1. fickle
2. everyday
3. bloated
4. striped
5. crunchy

○
1. define
2. pollinate
3. wallop
4. jerk
5. kill

○
1. musically
2. thirstily
3. simply
4. fragrantly
5. sleepily

○
1. chapter
2. leather
3. bronco
4. zebra
5. serpent

Functions pervade all of mathematics and its ______________. Hence it is necessary to be aware of this ______________ and to be able to ______________ functions as they arise--and to ______________ when they have interesting ______________. Doubtless you are already ______________ familiar with those special ______________ called the elementary functions, and in ______________ chapters you will ______________ these special functions in ______________ detail.

○
1. radicals
2. applications
3. symphonies
4. octagons
5. mortgages

○
1. reptile
2. drama
3. prosperity
4. universality
5. scholarship

○
1. recognize
2. bequeath
3. disfigure
4. starve
5. ooze

○
1. snare
2. bridle
3. know
4. thread
5. poach

○
1. carburetors
2. injections
3. tablets
4. ramps
5. properties

○
1. lowly
2. orally
3. partly
4. sourly
5. fragrantly

○
1. functions
2. congruences
3. intervals
4. supplements
5. corollaries

○
1. succeeding
2. prospering
3. slumbering
4. amazing
5. reflecting

○
1. swindle
2. cart
3. study
4. exhibit
5. impeach

○
1. some
2. noisy
3. creaky
4. vocal
5. magical

A sample space for a ______________ probability problem plays the ______________ of the universal ______________ in that problem. Each ______________ of an experiment is ______________ a sample point or, ______________ briefly, a point. The ______________ number of points in a ______________ space is denoted by n(S). That is, n(S) is the ______________ number of the sample ______________ S.

○
1. dejected
2. mad
3. particular
4. stormy
5. vivacious

○
1. wire
2. antelope
3. role
4. steed
5. chant

○
1. leg
2. set
3. limit
4. derivative
5. determinate

○
1. constable
2. boycott
3. charter
4. brush
5. outcome

○
1. copied
2. spared
3. crowned
4. called
5. prescribed

○
1. more
2. terribly
3. irregularly
4. honestly
5. poorly

○
1. thankful
2. total
3. senile
4. watery
5. merry

○
1. fluffy
2. muscular
3. severe
4. portable
5. sample

○
1. inscribed
2. conic
3. reflexive
4. cardinal
5. associative

○
1. postulate
2. syllogism
3. base
4. space
5. amplitude

11 28 01 05 12 M 28-5

Pittsburgh, Pennsylvania, has an effective pollution _______________ system, which includes sampling the _______________ of pollutants in the _______________. When excessive amounts are _______________, authorities take action against the _______________. As a result, Pittsburgh is one of the _______________ cities in the United States.

Such _______________ procedures involve principles of _______________ and statistics, a branch of _______________ which has developed rapidly in _______________ years.

○
1. walnut
2. control
3. pavement
4. column
5. ruffle

○
1. spoon
2. gear
3. level
4. celebrity
5. wire

○
1. air
2. mitt
3. spark
4. refrain
5. bat

○
1. paddled
2. wedged
3. delighted
4. amused
5. found

○
1. springs
2. figures
3. ladders
4. offenders
5. molecules

○
1. rawest
2. cleanest
3. bulkiest
4. heaviest
5. steepest

○
1. sampling
2. barefoot
3. bold
4. plumb
5. humid

○
1. inequality
2. probability
3. divisibility
4. eccentricity
5. similarity

○
1. mathematics
2. decimeters
3. collections
4. gallons
5. pyramids

○
1. curly
2. recent
3. foamy
4. spare
5. graceful

The substitution method for solving ______________ in three variables is ______________ to that for systems in ______________ variables. First, solve an ______________ for one variable in ______________ of the other variables. ______________ substitute your result in each of the other ______________ equations. This will ______________ a system of two ______________ in two variables. Then you can ______________ this system by the methods previously described.

○
1. subways
2. glaciers
3. systems
4. actresses
5. spoons

○
1. repugnant
2. similar
3. poison
4. perpendicular
5. soothing

○
1. rugged
2. two
3. hot
4. prim
5. ripe

○
1. axis
2. element
3. equation
4. amplitude
5. inch

○
1. terms
2. clumps
3. ounces
4. kettles
5. sobs

○
1. Then
2. Loyally
3. Hopefully
4. Regally
5. Feebly

○
1. lame
2. dark
3. toasty
4. illegal
5. two

○
1. burn
2. pamper
3. drain
4. yield
5. nibble

○
1. equations
2. trapezoids
3. legs
4. dollars
5. sellers

○
1. tax
2. solve
3. borrow
4. carry
5. earn

# SPPED

FORM
85
M

TEST DEVELOPMENT NOTEBOOK

## Answer Key
## for Multiple-Choice
## Cloze Exercises

## TEXTUAL DOMAIN
# Mathematics

Revised 1977

**The University of the State of New York**
**THE STATE EDUCATION DEPARTMENT**
**Divisions of Research and Evaluation**
**Albany, New York 12234**
1976

TM 830 061 (2 of 2)

# SPPED: System for Pupil and Program Evaluation and Development

TEST DEVELOPMENT NOTEBOOK

Answer Key for

Multiple-Choice Cloze Exercises

TEXTUAL DOMAIN

MATHEMATICS

For use with SPPED Form 81, Test Development Notebook Multiple-Choice Cloze Exercises, Revised 1977.

The University Of The State Of New York
THE STATE EDUCATION DEPARTMENT
Divisions of Research and Evaluation
Albany, New York 12234
November 1977

## TDN: Multiple-Choice Cloze--Answer Key

### TEXTUAL DOMAIN: Mathematics (M)

Position of answer corresponds with position of item on exercise page.

| Difficulty Level 5 | M 5-1 | M 5-2 | M 5-3 | M 5-4 | M 5-5 | M 5-6 |
|---|---|---|---|---|---|---|
| | 1 2 | 2 1 | 4 2 | 2 2 | 3 4 | 1 4 |
| | 4 4 | 4 4 | 3 1 | 2 2 | 3 4 | 1 2 |
| | 1 4 | 1 2 | 1 1 | 3 3 | 4 3 | 4 4 |
| | 3 1 | 3 3 | 1 1 | 4 1 | 4 2 | 1 4 |
| | 4 2 | 2 3 | 2 1 | 4 1 | 1 2 | 3 1 |
| Difficulty Level 6 | M 6-1 | M 6-2 | M 6-3 | M 6-4 | M 6-5 | M 6-6 |
| | 2 4 | 2 3 | 1 4 | 2 3 | 3 1 | 1 3 |
| | 1 2 | 4 1 | 1 1 | 4 1 | 3 1 | 4 2 |
| | 2 2 | 3 4 | 3 1 | 1 1 | 1 4 | 2 4 |
| | 4 2 | 3 2 | 2 4 | 1 1 | 1 2 | 2 4 |
| | 2 3 | 2 3 | 1 1 | 2 1 | 2 2 | 4 4 |
| | M 6-7 | M 6-8 | M 6-9 | | | |
| | 2 1 | 3 2 | 3 3 | | | |
| | 4 1 | 2 2 | 1 3 | | | |
| | 4 4 | 1 4 | 2 4 | | | |
| | 1 2 | 3 1 | 2 2 | | | |
| | 2 1 | 1 3 | 4 1 | | | |
| Difficulty Level 7 | M 7-1 | M 7-2 | M 7-3 | M 7-4 | | |
| | 4 3 | 5 3 | 3 4 | 3 2 | | |
| | 1 4 | 2 2 | 1 5 | 2 5 | | |
| | 3 2 | 5 3 | 1 5 | 4 2 | | |
| | 1 1 | 3 1 | 2 3 | 3 4 | | |
| | 3 2 | 3 4 | 3 4 | 5 4 | | |

TEXTUAL DOMAIN: Mathematics (Cont.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Difficulty Level 8 | M 8-1 | M 8-2 | M 8-3 | M 8-4 | M 8-5 | M 8-6 |
| | 4 4<br>4 4<br>3 1<br>1 2<br>3 1 | 2 1<br>2 3<br>2 1<br>2 4<br>3 3 | 5 4<br>3 1<br>5 5<br>4 4<br>4 3 | 5 1<br>5 4<br>2 4<br>5 4<br>2 1 | 2 1<br>3 5<br>1 5<br>4 2<br>2 3 | 5 3<br>3 5<br>3 4<br>5 5<br>5 1 |
| | M 8-7 | M 8-8 | M 8-9 | | | |
| | 2 2<br>1 2<br>3 1<br>2 1<br>3 4 | 3 5<br>1 4<br>5 2<br>1 5<br>4 2 | 2 1<br>2 5<br>5 5<br>4 5<br>1 4 | | | |
| Difficulty Level 9 | M 9-1 | M 9-2 | M 9-3 | M 9-4 | | |
| | 1 4<br>1 2<br>1 3<br>4 5<br>4 1 | 1 1<br>1 3<br>5 4<br>4 2<br>3 2 | 4 2<br>1 3<br>1 5<br>4 4<br>5 3 | 3 4<br>2 3<br>3 2<br>4 5<br>4 1 | | |
| Difficulty Level 10 | M 10-1 | M 10-2 | M 10-3 | M 10-4 | M 10-5 | M 10-6 |
| | 3 3<br>2 2<br>1 3<br>2 2<br>4 3 | 3 4<br>4 4<br>4 1<br>3 3<br>4 1 | 1 3<br>2 1<br>3 2<br>1 4<br>4 2 | 4 5<br>3 5<br>1 5<br>2 5<br>4 1 | 2 5<br>3 1<br>1 1<br>1 2<br>3 5 | 5 3<br>5 3<br>1 3<br>4 2<br>2 2 |
| | M 10-7 | M 10-8 | | | | |
| | 4 2<br>5 1<br>1 4<br>1 4<br>1 5 | 4 3<br>1 4<br>4 5<br>5 4<br>1 2 | | | | |

TEXTUAL DOMAIN: Mathematics (Cont.)

| | | | | | | |
|---|---|---|---|---|---|---|
| **Difficulty Level 11** | M 11-1 | M 11-2 | M 11-3 | M 11-4 | M 11-5 | M 11-6 |
| | 2 3<br>4 4<br>2 2<br>1 2<br>3 1 | 4 4<br>5 5<br>5 5<br>5 4<br>5 4 | 4 1<br>4 5<br>1 4<br>4 3<br>1 5 | 4 5<br>1 3<br>3 2<br>1 1<br>5 3 | 2 3<br>4 2<br>3 5<br>3 5<br>2 4 | 3 5<br>5 1<br>4 4<br>4 4<br>5 1 |
| | M 11-7 | M 11-8 | | | | |
| | 4 5<br>1 3<br>4 2<br>3 4<br>1 2 | 1 4<br>3 1<br>1 4<br>2 4<br>3 4 | | | | |
| **Difficulty Level 12** | M 12-1 | M 12-2 | M 12-3 | M 12-4 | M 12-5 | M 12-6 |
| | 1 1<br>3 3<br>4 4<br>2 1<br>1 3 | 2 1<br>1 4<br>5 2<br>5 3<br>1 1 | 4 5<br>2 1<br>1 3<br>3 1<br>3 1 | 2 3<br>1 4<br>1 3<br>1 4<br>4 2 | 5 2<br>5 4<br>1 2<br>1 1<br>4 4 | 4 3<br>2 2<br>3 3<br>3 5<br>3 1 |
| | M 12-7 | M 12-8 | M 12-9 | M 12-10 | | |
| | 2 1<br>4 1<br>5 2<br>2 5<br>3 3 | 4 4<br>4 3<br>1 1<br>4 5<br>3 4 | 2 2<br>5 1<br>5 4<br>5 5<br>1 2 | 4 5<br>5 3<br>3 1<br>1 3<br>3 4 | | |
| **Difficulty Level 13** | M 13-1 | M 13-2 | M 13-3 | M 13-4 | M 13-5 | M 13-6 |
| | 4 5<br>2 5<br>4 1<br>5 3<br>2 4 | 2 4<br>5 2<br>2 5<br>1 4<br>5 2 | 2 5<br>1 2<br>1 3<br>5 4<br>4 5 | 3 3<br>4 3<br>2 1<br>1 3<br>4 4 | 5 3<br>1 1<br>2 2<br>2 3<br>2 1 | 2 1<br>1 2<br>3 5<br>4 3<br>5 4 |

TEXTUAL DOMAIN: Mathematics (Cont.)

| | | | | | | |
|---|---|---|---|---|---|---|
| | M 13-7 | M 13-8 | M 13-9 | | | |
| | 3 4 | 4 2 | 1 4 | | | |
| | 4 5 | 2 3 | 2 4 | | | |
| | 2 1 | 4 2 | 1 1 | | | |
| | 1 3 | 3 4 | 5 5 | | | |
| | 2 2 | 1 1 | 5 3 | | | |
| Difficulty Level 14 | M 14-1 | M 14-2 | M 14-3 | M 14-4 | M 14-5 | M 14-6 |
| | 2 2 | 2 1 | 4 1 | 2 1 | 1 3 | 1 4 |
| | 1 2 | 3 3 | 3 3 | 4 1 | 4 2 | 4 2 |
| | 1 4 | 1 2 | 3 2 | 1 2 | 2 3 | 4 4 |
| | 4 2 | 3 1 | 2 3 | 4 4 | 2 2 | 2 5 |
| | 1 3 | 3 1 | 5 4 | 1 1 | 1 4 | 3 5 |
| | M 14-7 | M 14-8 | M 14-9 | M 14-10 | M 14-11 | |
| | 5 5 | 1 3 | 2 3 | 1 3 | 5 3 | |
| | 1 1 | 3 3 | 1 1 | 1 2 | 5 4 | |
| | 3 1 | 5 2 | 2 1 | 1 5 | 4 5 | |
| | 1 5 | 2 2 | 2 2 | 1 1 | 3 1 | |
| | 2 2 | 4 4 | 2 5 | 3 3 | 4 5 | |
| Difficulty Level 15 | M 15-1 | M 15-2 | M 15-3 | M 15-4 | M 15-5 | M 15-6 |
| | 5 3 | 4 4 | 2 3 | 4 1 | 5 2 | 3 5 |
| | 1 5 | 3 5 | 4 1 | 4 5 | 4 2 | 5 2 |
| | 3 3 | 2 4 | 4 2 | 2 3 | 1 4 | 4 2 |
| | 1 4 | 1 1 | 2 3 | 4 5 | 4 1 | 5 3 |
| | 2 2 | 1 3 | 1 1 | 1 4 | 2 2 | 2 3 |
| | M 15-7 | | | | | |
| | 1 5 | | | | | |
| | 4 5 | | | | | |
| | 2 2 | | | | | |
| | 4 4 | | | | | |
| | 2 2 | | | | | |

## TEXTUAL DOMAIN: Mathematics (Cont.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Difficulty Level 16** | M 16-1 | | M 16-2 | | M 16-3 | | M 16-4 | | M 16-5 | | M 16-6 | |
| | 1 | 5 | 3 | 1 | 3 | 1 | 2 | 2 | 2 | 5 | 5 | 3 |
| | 1 | 5 | 2 | 5 | 2 | 1 | 1 | 3 | 1 | 3 | 2 | 5 |
| | 3 | 2 | 5 | 5 | 4 | 4 | 1 | 3 | 4 | 5 | 5 | 1 |
| | 4 | 2 | 4 | 5 | 1 | 2 | 1 | 3 | 2 | 1 | 1 | 2 |
| | 1 | 1 | 1 | 2 | 2 | 3 | 5 | 2 | 3 | 5 | 4 | 3 |
| | M 16-7 | | | | | | | | | | | |
| | 1 | 4 | | | | | | | | | | |
| | 2 | 2 | | | | | | | | | | |
| | 4 | 2 | | | | | | | | | | |
| | 5 | 2 | | | | | | | | | | |
| | 1 | 2 | | | | | | | | | | |
| **Difficulty Level 17** | M 17-1 | | M 17-2 | | M 17-3 | | M 17-4 | | M 17-5 | | M 17-6 | |
| | 4 | 3 | 3 | 3 | 3 | 5 | 5 | 4 | 5 | 4 | 1 | 3 |
| | 2 | 3 | 4 | 1 | 1 | 3 | 2 | 3 | 1 | 5 | 2 | 1 |
| | 3 | 3 | 1 | 1 | 2 | 5 | 4 | 4 | 5 | 1 | 2 | 4 |
| | 5 | 1 | 1 | 3 | 1 | 1 | 2 | 5 | 3 | 3 | 2 | 1 |
| | 3 | 5 | 2 | 4 | 1 | 4 | 2 | 5 | 5 | 5 | 5 | 5 |
| | M 17-7 | | M 17-8 | | M 17-9 | | M 17-10 | | | | | |
| | 2 | 5 | 5 | 5 | 3 | 3 | 5 | 3 | | | | |
| | 4 | 2 | 3 | 4 | 4 | 4 | 3 | 2 | | | | |
| | 2 | 5 | 5 | 3 | 3 | 2 | 4 | 2 | | | | |
| | 4 | 3 | 1 | 1 | 1 | 5 | 4 | 2 | | | | |
| | 3 | 1 | 4 | 1 | 3 | 1 | 5 | 5 | | | | |
| **Difficulty Level 18** | M 18-1 | | M 18-2 | | M 18-3 | | M 18-4 | | M 18-5 | | M 18-6 | |
| | 4 | 5 | 1 | 1 | 1 | 2 | 3 | 5 | 2 | 3 | 4 | 3 |
| | 1 | 1 | 3 | 5 | 1 | 5 | 1 | 5 | 1 | 2 | 4 | 4 |
| | 5 | 1 | 2 | 5 | 5 | 2 | 5 | 2 | 3 | 1 | 4 | 4 |
| | 5 | 5 | 3 | 1 | 2 | 4 | 5 | 3 | 1 | 4 | 3 | 5 |
| | 2 | 3 | 4 | 4 | 1 | 2 | 3 | 3 | 5 | 1 | 1 | 3 |

TEXTUAL DOMAIN: Mathematics (Cont.)

| | | | | | | |
|---|---|---|---|---|---|---|
| | M 18-7 | M 18-8 | M 18-9 | M 18-10 | M 18-11 | |
| | 4 3 | 3 4 | 5 1 | 2 3 | 5 1 | |
| | 2 4 | 5 1 | 1 5 | 3 3 | 5 5 | |
| | 5 5 | 3 1 | 3 4 | 4 4 | 1 3 | |
| | 3 1 | 3 5 | 3 3 | 1 2 | 3 3 | |
| | 1 1 | 1 5 | 4 5 | 5 3 | 2 5 | |
| Difficulty Level 19 | M 19-1 | M 19-2 | M 19-3 | M 19-4 | M 19-5 | M 19-6 |
| | 1 4 | 2 2 | 4 3 | 4 2 | 5 5 | 1 1 |
| | 3 3 | 5 5 | 3 4 | 2 3 | 2 2 | 3 4 |
| | 1 1 | 3 2 | 4 3 | 2 5 | 2 1 | 2 2 |
| | 2 2 | 3 5 | 4 4 | 1 4 | 1 2 | 3 2 |
| | 4 5 | 4 2 | 2 5 | 4 2 | 5 4 | 3 4 |
| | M 19-7 | M 19-8 | M 19-9 | M 19-10 | M 19-11 | |
| | 2 5 | 3 3 | 3 3 | 3 5 | 5 1 | |
| | 1 4 | 2 2 | 2 2 | 5 4 | 4 2 | |
| | 4 1 | 4 4 | 4 5 | 4 2 | 1 5 | |
| | 2 5 | 1 2 | 2 3 | 1 1 | 2 4 | |
| | 3 2 | 4 3 | 2 4 | 2 2 | 4 1 | |
| Difficulty Level 20 | M 20-1 | M 20-2 | M 20-3 | M 20-4 | M 20-5 | M 20-6 |
| | 4 3 | 2 3 | 2 4 | 4 4 | 1 1 | 3 3 |
| | 3 3 | 4 5 | 1 2 | 1 3 | 5 1 | 4 5 |
| | 2 3 | 4 3 | 2 4 | 1 1 | 1 1 | 1 4 |
| | 5 3 | 1 1 | 2 1 | 4 5 | 1 3 | 4 4 |
| | 5 2 | 1 3 | 5 4 | 2 1 | 2 1 | 1 4 |
| | M 20-7 | M 20-8 | M 20-9 | M 20-10 | M 20-11 | M 20-12 |
| | 2 4 | 3 5 | 2 3 | 4 5 | 3 3 | 3 5 |
| | 1 3 | 2 3 | 5 2 | 2 2 | 2 1 | 5 2 |
| | 4 3 | 4 2 | 4 3 | 3 4 | 5 1 | 4 2 |
| | 4 5 | 4 5 | 5 4 | 3 2 | 1 2 | 5 3 |
| | 3 3 | 2 1 | 2 1 | 2 2 | 4 3 | 2 3 |

TEXTUAL DOMAIN: Mathematics (Cont.)

| | | | | | | |
|---|---|---|---|---|---|---|
| | M 20-13 | M 20-14 | M 20-15 | M 20-16 | M 20-17 | M 20-18 |
| | 5 2 | 4 4 | 4 3 | 2 5 | 5 3 | 1 5 |
| | 4 2 | 5 3 | 1 4 | 4 2 | 1 5 | 2 2 |
| | 1 4 | 1 1 | 3 4 | 3 1 | 1 5 | 4 3 |
| | 4 1 | 4 4 | 1 4 | 5 1 | 2 1 | 5 2 |
| | 2 2 | 4 1 | 4 2 | 4 2 | 5 1 | 5 1 |
| | M 20-19 | | | | | |
| | 4 3 | | | | | |
| | 1 1 | | | | | |
| | 4 4 | | | | | |
| | 4 1 | | | | | |
| | 5 4 | | | | | |
| Difficulty Level 21 | M 21-1 | M 21-2 | M 21-3 | M 21-4 | M 21-5 | M 21-6 |
| | 5 2 | 1 1 | 5 2 | 1 1 | 1 2 | 5 3 |
| | 3 5 | 3 5 | 5 5 | 4 3 | 1 2 | 3 2 |
| | 3 5 | 5 4 | 4 1 | 3 1 | 1 4 | 2 4 |
| | 4 3 | 3 4 | 1 4 | 4 5 | 3 2 | 1 2 |
| | 1 5 | 3 5 | 2 4 | 1 1 | 3 4 | 5 5 |
| | M 21-7 | M 21-8 | | | | |
| | 1 4 | 5 4 | | | | |
| | 3 3 | 4 5 | | | | |
| | 2 2 | 1 1 | | | | |
| | 5 4 | 5 1 | | | | |
| | 3 1 | 2 2 | | | | |
| Difficulty Level 22 | M 22-1 | M 22-2 | M 22-3 | M 22-4 | M 22-5 | M 22-6 |
| | 2 3 | 4 3 | 3 5 | 5 5 | 2 4 | 2 4 |
| | 4 2 | 3 5 | 1 3 | 3 1 | 4 5 | 3 5 |
| | 1 3 | 4 2 | 3 4 | 4 1 | 2 2 | 2 1 |
| | 5 2 | 1 4 | 4 1 | 1 4 | 4 3 | 3 1 |
| | 1 4 | 4 1 | 5 3 | 5 1 | 2 2 | 5 4 |

## TEXTUAL DOMAIN: Mathematics (Cont.)

| | | | | | | |
|---|---|---|---|---|---|---|
| | M 22-7 | M 22-8 | M 22-9 | M 22-10 | M 22-11 | |
| | 2 3 | 4 2 | 4 1 | 5 3 | 3 5 | |
| | 2 2 | 3 2 | 4 2 | 4 4 | 3 2 | |
| | 3 3 | 5 1 | 5 5 | 5 1 | 4 2 | |
| | 4 1 | 5 5 | 1 1 | 5 5 | 1 2 | |
| | 4 2 | 4 3 | 3 1 | 5 5 | 2 5 | |
| Difficulty Level 23 | M 23-1 | M 23-2 | M 23-3 | M 23-4 | M 23-5 | M 23-6 |
| | 2 2 | 4 1 | 3 1 | 2 4 | 4 2 | 4 1 |
| | 3 2 | 4 1 | 3 5 | 4 1 | 3 1 | 2 1 |
| | 2 1 | 5 3 | 2 3 | 2 3 | 4 3 | 1 1 |
| | 5 3 | 4 1 | 1 1 | 5 5 | 2 1 | 4 4 |
| | 5 3 | 1 5 | 4 1 | 1 2 | 4 4 | 2 3 |
| | M 23-7 | M 23-8 | M 23-9 | | | |
| | 1 1 | 3 4 | 5 2 | | | |
| | 3 1 | 5 5 | 3 3 | | | |
| | 4 2 | 5 5 | 3 4 | | | |
| | 5 1 | 4 2 | 5 3 | | | |
| | 5 2 | 2 3 | 5 2 | | | |
| Difficulty Level 24 | M 24-1 | M 24-2 | M 24-3 | M 24-4 | M 24-5 | M 24-6 |
| | 1 3 | 3 4 | 2 3 | 1 5 | 2 1 | 1 2 |
| | 4 4 | 5 5 | 3 1 | 1 5 | 5 4 | 4 1 |
| | 2 1 | 1 3 | 3 1 | 3 2 | 5 5 | 3 4 |
| | 3 3 | 4 4 | 4 4 | 4 1 | 1 4 | 1 2 |
| | 5 2 | 1 5 | 5 2 | 1 4 | 3 3 | 4 5 |
| | M 24-7 | M 24-8 | | | | |
| | 4 4 | 3 2 | | | | |
| | 5 2 | 3 4 | | | | |
| | 3 1 | 5 3 | | | | |
| | 5 5 | 4 1 | | | | |
| | 4 2 | 2 3 | | | | |

TEXTUAL DOMAIN: Mathematics (Cont.)

| Difficulty Level 25 | M 25-1 | | M 25-2 | | M 25-3 | | M 25-4 | | M 25-5 | | M 25-6 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 3 | 2 | 1 | 4 | 3 | 2 | 5 | 3 | 1 | 1 | 2 | 4 |
| | 4 | 4 | 3 | 1 | 4 | 3 | 1 | 1 | 2 | 4 | 1 | 2 |
| | 2 | 5 | 2 | 1 | 5 | 5 | 1 | 1 | 4 | 4 | 4 | 1 |
| | 5 | 5 | 4 | 3 | 4 | 1 | 3 | 5 | 1 | 2 | 3 | 2 |
| | 3 | 1 | 3 | 1 | 1 | 3 | 5 | 5 | 2 | 2 | 1 | 1 |
| Difficulty Level 26 | M 26-1 | | M 26-2 | | M 26-3 | | M 26-4 | | M 26-5 | | M 26-6 | |
| | 3 | 2 | 2 | 1 | 2 | 3 | 5 | 2 | 1 | 1 | 2 | 1 |
| | 5 | 2 | 4 | 1 | 1 | 5 | 1 | 2 | 4 | 3 | 1 | 4 |
| | 1 | 1 | 5 | 2 | 5 | 5 | 5 | 4 | 2 | 4 | 3 | 2 |
| | 3 | 4 | 2 | 5 | 1 | 3 | 2 | 3 | 5 | 4 | 4 | 3 |
| | 2 | 4 | 3 | 3 | 2 | 4 | 4 | 1 | 4 | 5 | 3 | 4 |
| | M 26-7 | | | | | | | | | | | |
| | 4 | 4 | | | | | | | | | | |
| | 1 | 2 | | | | | | | | | | |
| | 5 | 5 | | | | | | | | | | |
| | 3 | 3 | | | | | | | | | | |
| | 5 | 5 | | | | | | | | | | |
| Difficulty Level 27 | M 27-1 | | M 27-2 | | | | | | | | | |
| | 5 | 3 | 5 | 5 | | | | | | | | |
| | 4 | 2 | 2 | 4 | | | | | | | | |
| | 2 | 4 | 4 | 5 | | | | | | | | |
| | 4 | 3 | 5 | 4 | | | | | | | | |
| | 2 | 3 | 5 | 2 | | | | | | | | |
| Difficulty Level 28 | M 28-1 | | M 28-2 | | M 28-3 | | M 28-4 | | M 28-5 | | M 28-6 | |
| | 4 | 2 | 1 | 1 | 2 | 3 | 3 | 1 | 2 | 2 | 3 | 1 |
| | 3 | 3 | 2 | 2 | 4 | 1 | 3 | 2 | 3 | 1 | 2 | 5 |
| | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 5 | 1 | 2 | 2 | 4 |
| | 4 | 4 | 2 | 3 | 3 | 3 | 5 | 4 | 5 | 1 | 3 | 1 |
| | 1 | 3 | 3 | 1 | 5 | 1 | 4 | 4 | 4 | 2 | 1 | 2 |